



FEDERAL ELECTION POLICY PLATFORM



January 2019





The Australian Automobile Association (AAA) is the nation's peak motoring body representing Australia's state-based motoring clubs and their 8 million members.

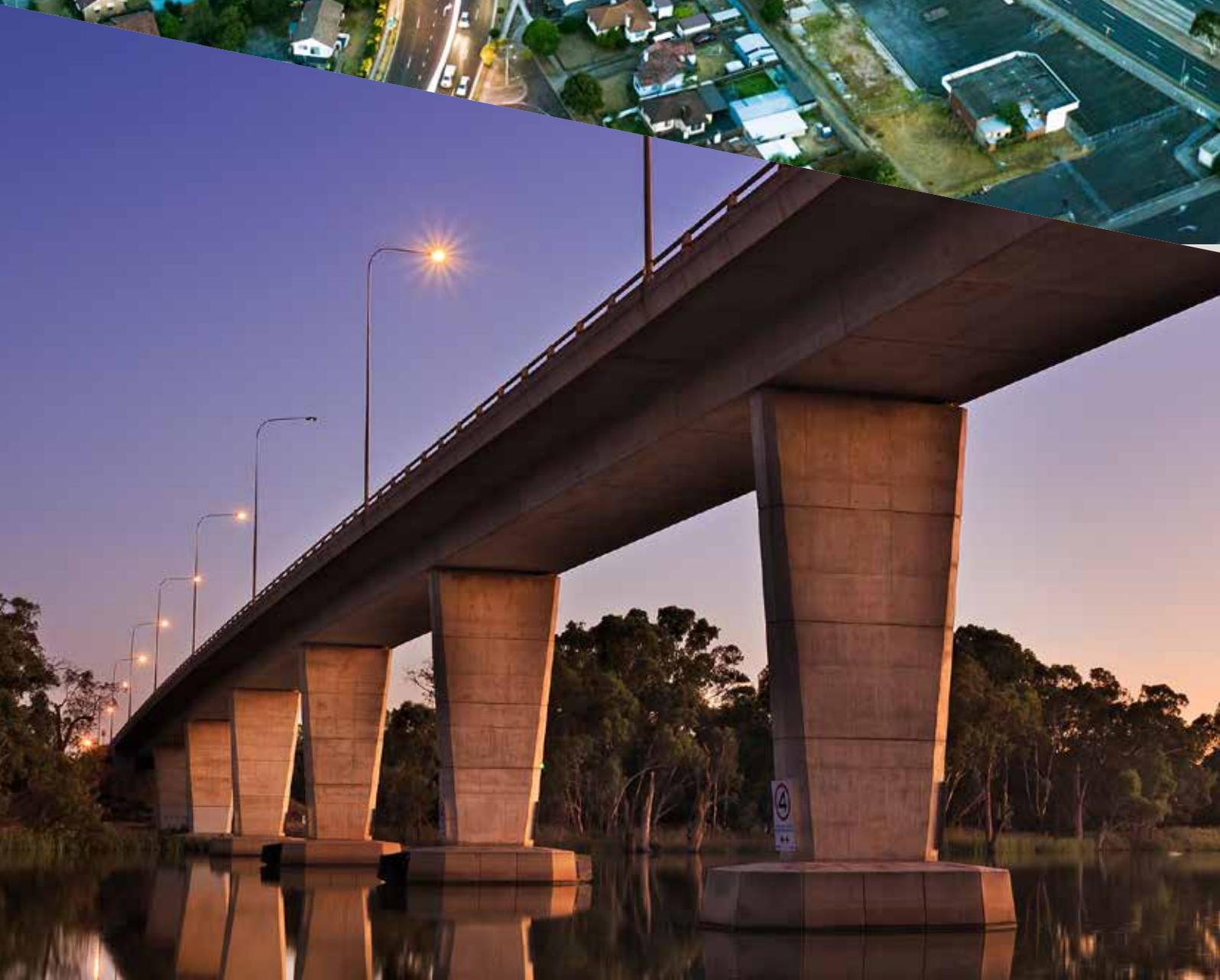
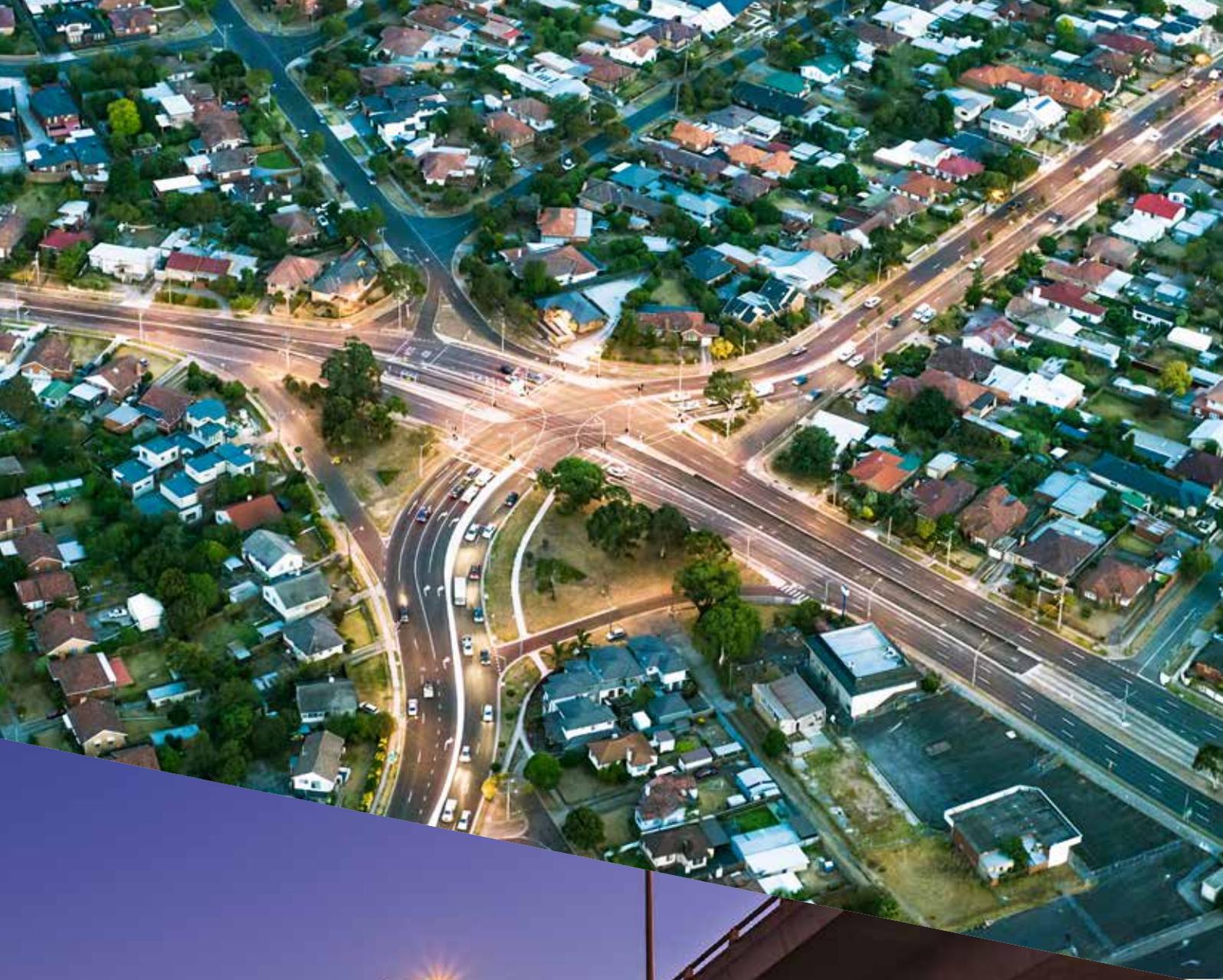
The AAA is an apolitical and technology-neutral advocate for federal policy that improves safety, affordability, and mobility in land transport.

This Policy Platform outlines the policies and projects that the AAA wants the parties contesting the 2019 Federal Election to commit to implementing.



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Australia deserves a safe, fair, efficient transport system

Australia's economy and quality of life rely on safe, efficient and affordable transport. But all data suggests that our national land transport system has failed to keep up with growing demand and technological change, and our living standards are suffering as a result.

Transport costs are rising, our roads have never been more congested, and important road safety targets are being missed. Continued failure to address these issues will only magnify the harm being done.

Australia urgently needs well-planned and comprehensive policy action to renew its land transport system. The Australian Automobile Association calls on the major parties to commit to:

1. developing a White Paper that maps out the necessary reform of Australia's land transport system
2. immediate investment in policies, programs and infrastructure that will upgrade the system's capacity and operation.

Long-term reform

The AAA calls on all parties to commit to developing a Land Transport White Paper. This Policy Platform outlines why the White Paper must:

- establish the process for developing and maintaining a fully funded 10-year infrastructure program
- define a pathway for structural reform of the nation's transport taxation and funding arrangements
- clarify and modernise state-federal infrastructure funding and prioritisation arrangements
- identify and plan infrastructure investment to facilitate emerging mobility technology
- be delivered no later than the end of 2020.

Immediate investment

Australia's land transport network is under significant strain. This Policy Platform outlines the policies, programs and infrastructure that the AAA expects all parties to commit to, so that our land transport system will be:

- safer
- fairer for all Australians
- more efficient
- more supportive of a productive economy.

The AAA believes this investment should be funded through the hypothecation of at least 50 per cent of net fuel excise into a dedicated land transport infrastructure fund.

Preface

Australia is a far-flung nation and our transport system is central to our way of life.

High-quality transport enriches our lives and our economy. Conversely, poor-quality transport impairs our quality of life, our living standards and our economic growth.

Unfortunately, Australia's transport system is not keeping pace with growing pressures.

Year after year, congestion worsens¹ and transport becomes less affordable.²

The nation has an infrastructure backlog estimated to be more than \$930 billion,³ total investment in our transport systems is declining,⁴ and the spending that is undertaken is poorly coordinated and largely ad hoc.

Key performance indicators show Australia's transport system is failing to deliver safe, efficient, affordable mobility.

To get back on track, Australia needs a vision and a framework for long-term reform of its land transport system.

For too long, the country has lacked an overarching land transport strategy. Australia's last Transport White Paper – the AusLink White Paper published in 2004 – has long since been out of date.

Successive governments have overlooked the need for a coordinated approach that recognises and responds to the pace of change.

Australia's population growth is among the highest in the OECD (a rate more than twice as high as the US and the UK⁵), and the past 15 years have seen unprecedented technological advancement and changing consumer preferences.

Clearly, a national transport strategy drafted three years before the iPhone's invention cannot help us face the challenges of today, let alone those coming over the horizon.

Autonomous vehicles and ride-sharing apps were science fiction in 2004. Yet such technological shifts underscore just how much our 21st Century transport planning requirements will differ from those of the past.

The pace of change will continue to accelerate. We have entered a new era, but our planning is stuck in the past.

We must start planning intelligently to develop a transport system fit for the 21st Century.

Let's examine the challenges we face.

Road safety must be a priority

Vehicle safety technologies continue to improve, yet each year thousands of Australians are killed or seriously injured in road crashes.

Every day, about 100 Australians are hospitalised for road crash-related injuries.⁶ That's one person hospitalised every 15 minutes because of a road crash.

Every month, about 100 Australians die on our roads.⁷

Every year, road trauma costs the national economy almost \$30 billion and costs our federal, state and local governments \$3.7 billion.⁸

Road trauma brings tragedy into the lives of thousands of Australians, affecting not only the people involved in crashes, but also their families, friends, workmates, and medical and emergency staff.

Australia's road trauma statistics make it clear that we are not on track to meet the targets set in the National Road Safety Strategy 2011-2020. All states and the Northern Territory are on a trajectory to miss road safety targets agreed in 2011.⁹

Heavy traffic: a growing problem

Congestion costs are rising every year. In 2014-15, land transport congestion cost Australia \$18.7 billion.¹⁰

AAA research has found that in 2018-19, congestion costs are expected to exceed \$23 billion, which will be more than the value of all road-related expenditure.¹¹

Without major policy changes, congestion costs are projected to reach between \$30.6 and \$41.2 billion by 2030.¹²

Research commissioned by the AAA in 2018 confirms that congestion has been worsening year on year in Australia's major cities.

The report found that over the period January 2017 to June 2018, average road performance for Australia's capital cities declined markedly across all performance metrics (speed, congestion and variability).¹³

Affordability: growing transport costs are squeezing family budgets

Australian transport costs are rising more than twice as fast as inflation.¹⁴

Typical Australian households are now spending between \$735 and \$750 a year more on transport than they were in 2017.¹⁵

A typical Australian metropolitan household now spends \$18,221 each year on transport. A typical regional household spends \$14,633 on transport.¹⁶

The proportion of total household income being spent on transport increased for both the average metropolitan and average regional families, reaching 14.4 per cent (up from 14.1 per cent the previous year) and 12.7 per cent (up from 12.2 per cent) respectively.¹⁷

The cumulative effect of repeated increases in transport costs is a heavy burden at a time when Australians are feeling cost of living pressures across the board.

Policymakers around the country must recognise that households are facing these rising costs and deliver policy solutions that help keep them in check.

Transport funding is running out of road

These problems cannot be effectively addressed without reforming the way our land transport systems are funded.

The Australian Government reinvests less than half of the money it collects in road-related charges into building, upgrading and maintaining our roads and related infrastructure.

In the 2018 Federal Budget, total land transport infrastructure spending over the four-year forward estimates period declined by almost \$2 billion compared to the previous Budget.¹⁸

Over the next four years, an average of only 40 per cent (or \$22 billion out of \$54 billion) of Federal Government net fuel excise will be spent on upgrading our transport network.¹⁹

Meanwhile, revenue from fuel excise is forecast to decline as more fuel-efficient vehicles take to our roads.

Unless these funding problems are addressed, our traffic problems will only continue to worsen.

It's clear that the development and maintenance of Australia's transport systems is not keeping up with the demands created by a rapidly growing population²⁰ that is increasingly concentrated in our largest cities.²¹

This damages our economy and harms our quality of life. It also makes our roads less safe.

Investing in transport is smart economics

The Australian Government analysed 128 road and rail projects between 2008-09 and 2013-14. It estimated that every dollar spent on these projects returned \$2.70 to the national economy.²²

Putting off transport investment is poor economic management.

Greenlight a White Paper

The time is right for a strategic review of our land transport system: its performance; how it can better meet Australians' needs; and how its development, maintenance and management can best be funded in the long term.

Australia's next Parliament must prioritise the development of a Land Transport White Paper to provide a comprehensive, responsible long-term policy framework for planning, managing and funding Australia's land transport systems.

Government must set an ambitious yet achievable timetable and commit to finalising the White Paper by the end of 2020.

Action is needed now

New transport policies and infrastructure are sorely needed. Their delivery cannot be deferred until a White Paper has been finalised.

Pending the development of a White Paper, the AAA calls on all major political parties to commit to continued investing in the land transport system to deliver meaningful improvements. Section 3 of this policy platform identifies critical policies, programs and projects that will enhance our transport system and deliver a good economic return.

With a strong long-term vision and strategic framework – in the form of a White Paper – and smart, well-targeted near-term investments, Australia can develop a world-class land transport system fit for the demands of the 21st Century.

Without such action, our outdated land transport system will continue to deteriorate.

If we fail to act, Australians will spend more time in traffic; we will continue to miss our road safety targets; national productivity will decline; the economy will suffer; uptake of emerging technology will continue to be stifled; and transport costs will continue to rise.



What Australians want

from their land transport system



What Australians want from their land transport system

Australia's motoring clubs and their 8 million members expect a land transport system that is:

- safe
- fair
- efficient
- enabling a productive economy.

AAA-commissioned polling shows that front-of-mind issues for Australian voters include transport infrastructure (12 per cent) and cost of living (35 per cent).²³

Cost of living is the biggest concern for Australian households. With transport costs rising faster than the consumer price index (CPI), transport has become a major cost of living issue for many Australians.²⁴

The AAA's member research had several notable findings:

- 85 per cent of people think that the government should invest more in roads, road safety and public transport.
- Key transport concerns include safety (65 per cent), motoring costs (30 per cent), road conditions and maintenance (25 per cent) and congestion (19 per cent).
- Driving a car is still the most common form of transport for Australians and 38 per cent say their car is 'extremely important' to them.
- 73 per cent of people think that the government should reinvest all of the revenue from fuel excise into transport (including safety, infrastructure and public transport).
- Nearly 20 per cent of city voters spend more than three hours a week in congested traffic, with 10 per cent spending more than six hours a week in congested traffic.
- Nearly a quarter of respondents use buses and trains at least once a week.

Concerns of Australian road users

The AAA commissioned member research that asked road users which issues they considered to be very important or fairly important.

Safety

92 per cent identify road safety as a key concern.

89 per cent want more government investment in road projects to improve safety.

Fact: In 2018 there were 1,146 deaths on our roads.²⁵ Under the National Road Safety Strategy, Australian governments agreed to reduce road deaths to less than 1,000 per year (a 30 per cent reduction on the pre-strategy baseline) by 2020.²⁶ With less than two years to go, it's clear we will fail to meet this goal.

Fact: The Strategy is targeting a 30 per cent reduction in road-related serious injuries between 2011 and 2020. Yet as of early 2019, it is still not possible to even measure this figure nationally. It is estimated that in 2015-16 there were 38,148 road-related injuries requiring hospital treatment.²⁷ This equates to 3,179 per month, 734 per week, 105 per day, or more than four every hour.²⁸

Fact: AAA-commissioned research found that road trauma costs the Australian economy almost \$30 billion a year.²⁹

Fairness

82 per cent are feeling transport cost pressures.

80 per cent want more fuel excise revenue spent on transport.

Fact: Australian transport costs are rising more than twice as fast as inflation. This is increasing pressure on household budgets. The typical metropolitan household is now spending \$18,221 a year on transport costs.³⁰

Fact: The Government expects to collect \$54.4 billion from motorists over the forward estimates from net fuel excise, and a further \$5.1 billion from luxury car tax and tariffs.³¹ Only \$22 billion will be returned in the form of land transport infrastructure grant funding over this period.³²

Efficiency

83 per cent want congestion relief.

85 per cent want more government spending on infrastructure to reduce time spent in traffic.

Fact: The Australian Government estimated the cost of congestion in our capital cities in 2014-15 at \$19 billion. This is projected to reach \$31.4 billion by 2030.³³ This is about \$1,000 per person per year for each resident of our capital cities.³⁴

Fact: ACIL Allen found that congestion costs will exceed the value of road-related expenditure by the early 2020s and possibly as early as 2018-19.³⁵

Fact: AAA research found that road performance is deteriorating across Australia's capital cities.³⁶

Supporting a productive economy

91 per cent are concerned about the state of transport infrastructure and road conditions.

Fact: In 2007 the country had an infrastructure backlog estimated at \$770 billion. In today's dollars this would be more than \$930 billion.³⁷

Fact: The Australian Government will collect about \$81 billion in road-related charges in the next five years but is predicted to return less than half to land transport infrastructure maintenance and development.³⁸ AAA-commissioned research in 2016 found that even if all surplus road-related revenue was directed to land transport infrastructure over the next five years, it would have been barely enough to build 10 out of 82 unfunded projects on Infrastructure Australia's Infrastructure Priority List.³⁹





The problem:

a failing and underfunded
land transport system

A failing and underfunded land transport system

The management and development of Australia's land transport system must be comprehensively overhauled.

Government investment in the system has not kept pace with increasing demand. The system is increasingly under pressure and its performance is declining.

Australian transport users are dealing with growing problems, including:

- road safety – deaths, injuries and economic costs
- transport affordability
- congestion
- longer commutes at slower speeds
- poor and unsafe regional transport networks
- overstressed public transport systems
- growing freight loads on already stressed roads
- a vast transport infrastructure backlog
- too many older cars on our roads – creating safety and emissions problems
- an emissions and fuel policy impasse, creating uncertainty for industry and consumers.

At the same time:

- vehicle technology is changing and use of electric and automated vehicles is forecast to rise.
- the way people use the transport system is changing, with the emergence of ride sharing and mobility as a service apps affecting attitudes to public transport and car ownership.

Addressing these issues is made even more difficult by an ongoing decline in federal transport investment and deep, systemic problems with Australia's transport-related revenue and funding.

A system under stress

Road trauma remains high

Hospital data suggests the rate of road traffic injuries increased from 141.7 cases per 100,000 people in 2000 to 160.3 per 100,000 people in 2013. The number of people with life-threatening injuries also increased.⁴⁰

In 2018, 1,146 people died on Australian roads.⁴¹ This is far above the National Road Safety Strategy target of less than 1,000 road fatalities per year by 2020.

Australia's road trauma statistics show that all states and the Northern Territory are on a trajectory to miss important National Road Safety Strategy targets that they agreed to in 2011.⁴²

Road crashes are costing more

Road trauma costs the Australian economy almost \$30 billion per annum and directly costs government \$3.7 billion a year.⁴³

Road related injuries requiring hospitalisation continue to increase, inflicting significant costs on the economy and the community.⁴⁴

The most recent report published by the Bureau of Infrastructure, Transport and Regional Economics (BITRE) found there were 38,148 road-related hospitalised injuries in the 2015-16 financial year⁴⁵ – or more than 100 a day.

Road safety data collection and measurement are failing

Hospital records suggest that we have a crisis in road-related injuries. Yet Australia still lacks a national system for measuring serious road crash injuries, despite the National Road Safety Strategy specifically targeting a 30 per cent reduction in serious injuries by 2020.

In 2017, AAA analysis of the Strategy found that only four of its 33 safety performance indicators were being met.⁴⁶ Alarmingly, eight key performance indicators are neither measured nor have any agreed targets.

Statistical measures of some key safety performance indicators are still not in place. Therefore, progress against targets cannot be measured. For example, data is not available for:

- the number of deaths from crashes where speed was a contributory factor
- average speeds at designated sites across the network
- the percentage of vehicles speeding by vehicle type and speeding offence category
- the percentage of new vehicles sold with key safety features.

Household transport costs are surging

The September 2018 edition of the AAA's Transport Affordability Index found that transport costs are rising rapidly and outpacing the rate of inflation. In the third quarter of 2018, transport costs for the typical Australian metropolitan household increased by 4.2 per cent, more than twice the quarter's 1.9 per cent inflation rate.⁴⁷

Rising transport costs are putting pressure on Australian households.

The typical Australian metropolitan household now spends \$18,221 in transport, compared to \$17,485 a year earlier.⁴⁸

Transport costs as a percentage of average income have increased for metropolitan and regional families, to 14.4 per cent and 12.7 per cent, respectively.

Household budgets are directly affected by a range of costs that the Government has a direct or indirect role in controlling. For example, fuel costs make up 22 per cent of weekly metropolitan household transport costs, and vehicle service and repair costs account for around 8 per cent.⁴⁹

Unfair restrictions cut competition, push up vehicle maintenance costs

Vehicle maintenance costs are also a considerable burden on Australian households.

A recent ACCC report found that consumers are facing the prospect of higher costs and delays in having their car serviced or repaired because car manufacturers are generally not providing independent service and repair operators with the same technical information they give to authorised dealerships.

The ACCC recommended regulatory intervention to force car manufacturers to deliver this technical information to independent repairers, thus supporting competition in the aftermarket sector and reducing costs for motorists.⁵³

Heavy-handed motoring taxes

In 2016-17, Australians paid almost \$31 billion in road-related taxes and charges covering all elements of buying and operating a car over its lifetime.⁵⁰ It is difficult to identify another area of Australian economic activity that is taxed as heavily as motoring.⁵¹

Motorists also pay a range of federal taxes associated with all elements of buying and operating a car over its lifetime. Taxes are collected when a motorist purchases a vehicle (GST, tariffs on cars manufactured in non free trade agreement overseas countries, such as EU countries, and for some car purchases, the luxury car tax). There are also taxes or charges associated with operating the vehicle (fuel excise, GST on excise, and potentially Fringe Benefits Tax).

A number of these federal taxes and charges were originally brought in to protect the now defunct Australian vehicle manufacturing industry. Over the next four years, Australian motorists will pay \$3.1 billion in Luxury Car Tax and almost \$2 billion in tariffs.⁵² These taxes must be abolished.

The burden of these taxes is not only unfair – it is also preventing many Australians from upgrading to safer, cleaner, and more cost-effective vehicles.

Vehicle fleet age not improving

Tariffs and taxes designed to protect the now-closed Australian auto-manufacturing sector will add \$5 billion to the price tag of new cars sold over the next four years.⁵⁴

This is not just an unfair impost on Australian motorists – it is also hindering the transition to a safer, more fuel-efficient and more environmentally friendly national car fleet. And it is even failing to deliver a net economic benefit to government.

Driving up vehicle costs makes it harder for motorists to upgrade their vehicles. Australia's passenger car fleet is old compared to other developed countries. The average Australian car is about 10 years old (9.8 years for passenger vehicles and 10.5 years for light commercial vehicles).⁵⁵ Average vehicle ages in Western Europe countries range between 7.3 years (German's light commercial vehicles) and 9 years (France's passenger cars).⁵⁶

This means that Australians are not getting access to the safety benefits built into new cars.

Older cars are less safe. Vehicles built before 2000 account for just 20 per cent of Australia's national fleet, but they are involved in 33 per cent of fatalities.⁵⁷

Updating the national fleet will help make safety technologies such as 'lane keep assist' and 'autonomous emergency braking' commonplace – preventing trauma and saving lives.⁵⁸

Removing the tariff would also reduce emissions and deliver financial savings to government that far outweigh the revenue raised by the tariff. AAA research has found reducing the average age of Australia's vehicle fleet by one year would:⁵⁹

- reduce road crashes by 5.4 per cent
- save more than 1,300 lives over the next 20 years
- deliver road trauma and emission reduction benefits worth \$19.7 billion over 20 years
- deliver \$3.3 billion in direct savings to government over the same period.

Congestion is worsening

The avoidable social costs of congestion in Australia’s eight capital cities were estimated to be about \$16.5 billion in the 2015 financial year (in 2010 dollars), rising from about \$12.8 billion in 2010.

These costs are projected to rise further to about \$30 billion by 2030 if there are no measures to cut congestion.⁶² BITRE estimates that congestion costs capital city residents about \$1,000 per person a year.⁶³

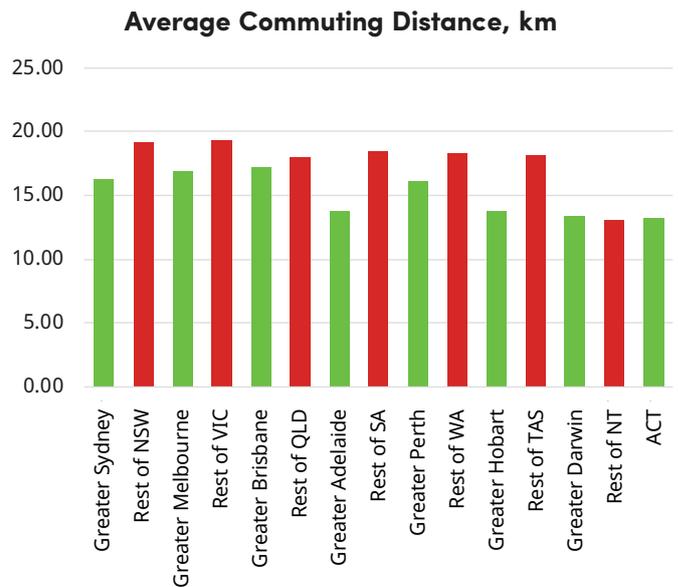
The morning travel peak has become longer and more congested in the last 30 years, greatly increasing the pressure on urban transport networks.⁶⁴

The AAA commissioned a report on this problem. The researchers analysed live traffic data and found road speed performance had steadily declined from 2013 to 2018.

Melbourne experienced the largest decline in speed performance with average speeds falling by 8.1 per cent. The next worst performers were Brisbane and Sydney where speeds declined by 3.7 per cent and 3.5 per cent respectively.⁶⁵

Commuters are travelling longer distances at slower speeds

Australians in the large capital cities are now commuting over longer distances. The 2016 Census found that Sydney, Melbourne, Perth and Brisbane residents face an average commuting distance of almost 17 kilometres compared to people in the smaller capitals – Adelaide, Canberra, Hobart and Darwin – where average city commutes are around 14 kilometres.⁶⁰ On average, regional commuters also face longer commutes than their city counterparts.⁶¹



SOURCE: ABS Census of Population and Housing (2016)

Transport networks are not delivering for regional Australia

Compared to their metropolitan counterparts, regional Australians have:

- fewer and worse transport options
- longer commutes
- higher transport costs per trip
- poorer roads
- higher rates of road crashes, including fatal crashes.

In 2016, BITRE reported that:

*'Many regional areas ... reported issues with their public transport system, including a lack of reliable, efficient and affordable public transport options and limited services. ... Analysis found that the average commuting distance in Australia is 15.6 kilometres. However, these distances are generally higher in areas outside of the major metropolitan centres. Low demand increases the cost per trip per user in regional Australia.'*⁶⁶

More road trauma in regional areas

Regional and remote areas have a substantially higher-than-average incidence of fatal road crashes on a population basis. Data from 2015 and 2016 show that 66 per cent of Australia's road deaths occur in regional and remote areas.⁶⁷

A BITRE report found that annual road deaths per 100,000 population ranged from 9.86 in inner regional Australia to 34.58 in very remote Australia. This is compared to the national average of 5.3 deaths per 100,000 and 2.64 deaths in major cities.⁶⁸

Annual road deaths per 100,000 population by remoteness area, 2012 – 2016

Remoteness Area	2012	2013	2014	2015	2016
Major Cities of Australia	2.8	2.6	2.3	2.43	2.64
Inner Regional Australia	11.0	9.5	9.3	9.05	9.86
Outer Regional Australia	13.7	11.7	11.9	13.93	14.20
Remote Australia	14.8	23.0	20.2	20.46	16.68
Very Remote Australia	27.3	26.3	26.3	28.30	34.58
Total Australia	5.7	5.1	4.9	5.1	5.3

SOURCE: Department of Infrastructure and Regional Development, International Road Safety Comparisons (2018)

Public transport systems under pressure

One in eight people in Australian capital cities uses public transport for daily commuting.⁶⁹ AAA commissioned research also found that 12 per cent of Australians prefer public transport over other transport modes.⁷⁰

Public transport patronage has steadily increased since 1996. Public transport is carrying more people and taking a bigger share of the growing transport market. The largest increases in mode share over this period were in Perth and Melbourne (both 2.2 percentage points) and Sydney (2.1 percentage points).⁷¹ The increase in public transport patronage has occurred mainly on rail systems. In Australian capital cities, 65 per cent of kilometres travelled on public transport are via heavy rail and 30 per cent on buses. Light rail and ferries make up the remaining 5 per cent.⁷²

Australia's public transport systems are under pressure. In Sydney and Melbourne, in particular, the passenger loads often exceed the maximum seating capacity. In New South Wales, some service lines are operating at up to 170 per cent during morning peak period.⁷³ In Melbourne, the Victorian Government dealt with overcrowding on trains by removing seats so more people could be fitted into the carriages.⁷⁴

The stress has also spread to regional centres. In Victoria, there has been an 80 per cent jump in the number of people doing the 135-minute Bendigo to Melbourne commute between 2006 and 2016.⁷⁵ In NSW, 28.8 per cent of Wollongong City's working residents travel outside of the area to work, mostly to various parts of metropolitan Sydney.⁷⁶

According to a BITRE report, demand for public transport is 'forecast to continue to rise in line with expected population increases. Based on passenger kilometres travelled, public transport usage is projected to grow by 32 per cent across all capital cities between 2011 and 2030.'⁷⁷

Infrastructure backlog

In 2008 Citigroup estimated that infrastructure investment required in the decade to 2018 would cost more than \$770 billion. In today's dollars this would be more than \$930 billion.⁷⁸

The Australian Local Government Association estimates that local governments across Australia have an infrastructure backlog of at least \$1.2 billion per annum, and about 11 per cent of local transport assets are in poor or very poor condition.⁷⁹

This infrastructure backlog means that many Australians, particularly in regional areas, lack access to adequate transport infrastructure and services.

More freight on overstressed roads

Movement of freight affects all Australians – as business owners, workers, consumers and users of the transport network. Efficient and effective movement of freight not only benefits the freight industry, but also other transport users and the national economy.

Australia's national land freight task is expected to double in the next 20 years, which will put more stress on already crowded roads.⁸⁰ The Inquiry into National Freight and Supply Chain Priorities released in May 2018 found that '... even with extra investment, Australian transport infrastructure will be hard pressed to meet this demand. Productivity improvements will need to be obtained through a national approach of coordinated investment and reforms.'⁸¹

More than three-quarters of Australia's non-bulk freight is carried on roads. Growing freight movements will further increase congestion and safety concerns.⁸²

The Inquiry into National Freight and Supply Chain Priorities' report has warned that Australia cannot afford complacency on freight and infrastructure: 'Failure to act will lead to loss of international competitiveness, loss of market share and higher cost of goods.'⁸³

Sadly, the report also noted that: 'many of the priorities in this Inquiry Report address issues that are well known and have been identified in previous work, but they have not been previously addressed. Governments need to take a leadership role and take immediate action.'⁸⁴

Australia's rail networks also have a key role in meeting the national freight task and supporting the economy. In 2013–14 freight rail carried 1.3 billion tonnes of freight and contributed about \$5.1 billion to the Australian economy.⁸⁵ The AAA calls for more investment in both rail and roads, to spread the freight task more evenly across the land transport network.

Impasse on emissions and fuel policy

In 2015, the Australian Government committed to climate change targets of a reduction of 26-28 per cent of CO2 emissions by 2030 based on 2005 baseline and established the Ministerial Forum on Vehicle Emissions to consider changes to noxious and carbon dioxide emissions standards, as well as improvements to fuel quality.⁸⁶

But as of January 2019, no decision has yet been announced on these policy positions.

This creates uncertainty for industry and consumers, stifling uptake of higher efficiency vehicles and reducing the vehicle and fuel industries' ability to plan.

Legislation and frameworks not keeping pace with emerging technology

Emerging technology has the potential to radically improve safety and productivity on our roads.

Human error is believed to be a factor in over 90 per cent of road crashes,⁸⁷ yet currently there are no explicit Australian regulations covering automated driving functions.

In addition, the National Transport Commission identified more than 700 provisions in transport-related Acts and regulations that could be a barrier to automated road vehicles.⁸⁸

Australia's legislation and frameworks need ongoing review to ensure they are equipped to safely accommodate automated vehicle technologies and harness the benefits for Australian motorists.

Smart infrastructure

The rise of new transport technology means that we also need to think differently about the infrastructure required to support our day to day travel needs.

With the increasing development of new vehicle technologies, new service delivery models, and new vehicle ownership trends, technology will play an increasing role in our transport systems.

As we move towards a fully automated and electric future, smart infrastructure must be at the forefront of how we keep people safe on our roads, improve commuter journeys, and reduce congestion and emissions.

Transport investment and revenue are in decline

Land transport investment is declining

The Australian Government will collect around \$81 billion in road-related charges in the next five years, but it is predicted to return less than half to land transport infrastructure.

AAA-commissioned research in 2016 found that even if all surplus road-related revenue was directed to land transport infrastructure over the next five years, it would have been barely enough to build 10 out of 82 unfunded projects on Infrastructure Australia's Infrastructure Priority List.⁸⁹ Infrastructure Australia has since expanded its priority list, so the backlog may well be growing.

The 2018 Federal Budget shows that spending on land transport infrastructure will decrease over the forward estimates by around \$2 billion compared to the last budget.

Land transport infrastructure spending is expected to peak in 2017-18 at \$7.4 billion, then fall to \$4.6 billion in 2021-22. Over the four-year forward estimates period, the proportion of net fuel excise returned to land transport infrastructure will decrease from 61 per cent in 2017-18 to just 32 per cent in 2020-21.⁹⁰

Motoring taxes and charges are not linked with how the system is funded

Research from BITRE acknowledges that there is little transparency in how transport-related revenue is spent:

*'Except in the case of some state and territory registration fees, road-related fees and charges are generally not allocated to road expenditure but go towards general revenue. Motorists in Australia therefore have little visibility of the use of existing taxes and charges because of their variety and complexity.'*⁹¹

Fuel excise is unfair and under threat

The Australian Government collects 41.2 cents in tax or excise on every litre of petrol and diesel sold at the pump in Australia.⁹² Rather than specifically earmarking this money for road safety or transport infrastructure, as many other countries do, the Government can allocate these funds to any area of expenditure.

Fuel excise means drivers of different cars pay different amounts to travel the same distance on the same road.

People on lower incomes often have a heavier burden because they tend to own older, less fuel-efficient vehicles. They are also more likely to live in outer suburbs or regional locations and have fewer public transport options.

This system is clearly inequitable and technological change is now magnifying its flaws.

The use of new technology (non-internal combustion) vehicles is forecast to grow strongly in coming decades. These vehicles can use the road network at no cost, as they are outside the fuel excise system.

This is not only unfair – it also puts a large question mark over fuel excise’s \$12.6 billion annual contribution to government coffers.

After declining from its peak in 2004-05, fuel excise revenue has stabilised in recent years, yet road usage has increased at around 1.5 per cent a year.⁹³

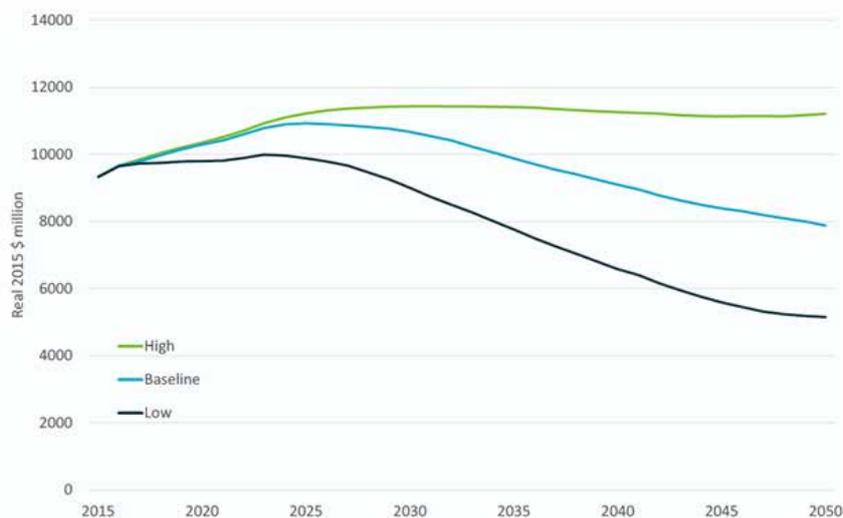
Fuel excise has now been indexed against CPI, with rises scheduled twice a year. The CSIRO found that this indexation and growth in transport demand is only strong enough to offset increasing fuel efficiency and uptake of alternative fuelled vehicles up until the 2020s, after which, further growth will be curtailed or reversed.⁹⁴

A BITRE report reinforces this view. It finds that new technology is likely to change how Australians travel. Electric and hydrogen-powered and other highly fuel-efficient cars, car-sharing and autonomous cars will become more common.

While emerging technologies will deliver safety, urban amenity, health, and cost of living benefits to transport users, their mass take-up is likely to lead to a future decline in government revenues from fuel excise, registration, licencing, policing and non-compliance fines.

The report concludes that this decline in revenue must be addressed, otherwise governments’ collective ability to fund transport infrastructure will be diminished in the future.⁹⁵

Projected road excise revenue to 2050 for the central, low and high scenarios (real 2015 dollars)

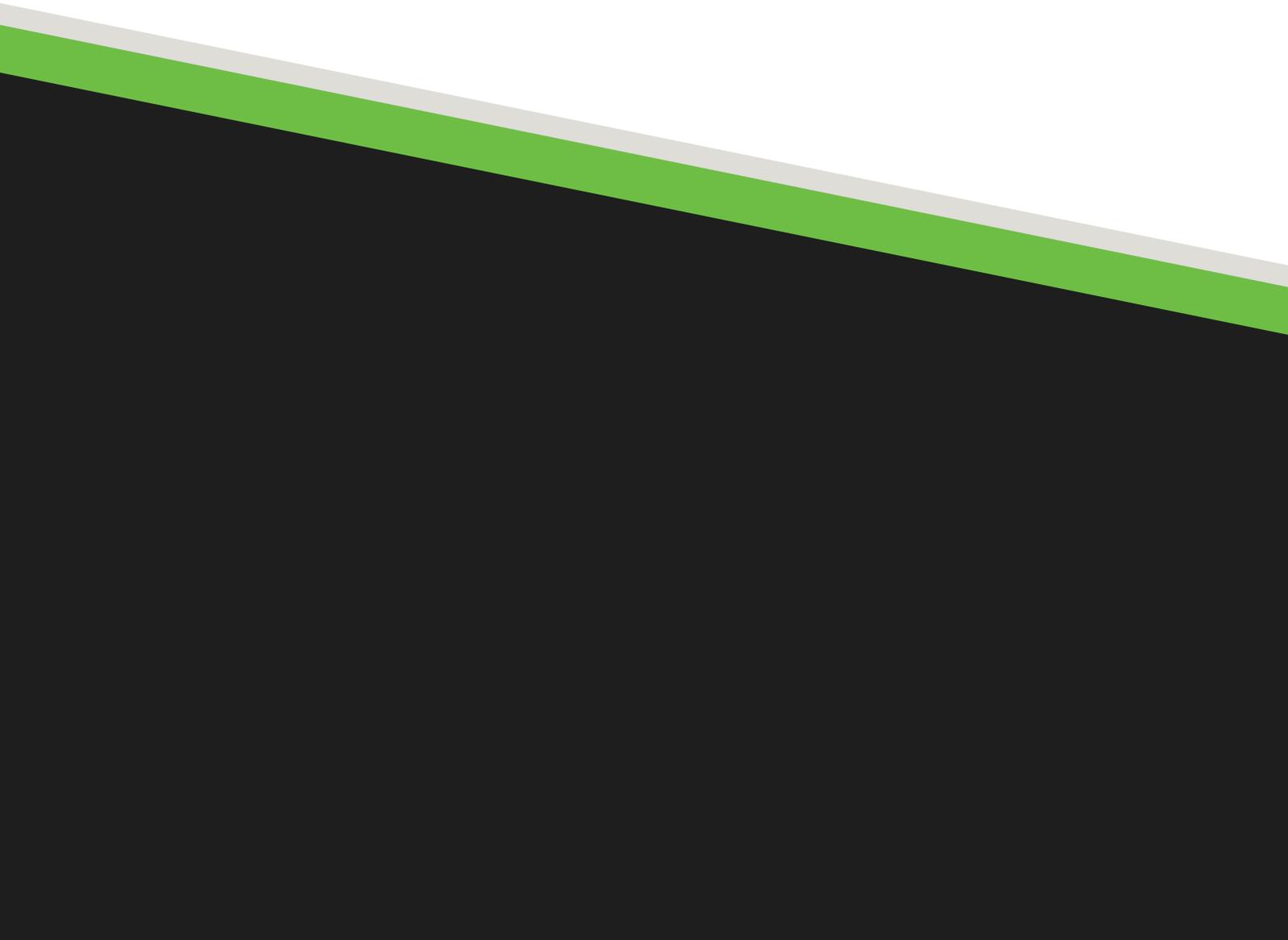


SOURCE: CSIRO, *Projecting future road transport revenues 2015-2050 (2015)*



The solution:

a transport system for the
21st Century



A transport system for the 21st Century

To build a transport system fit for the 21st Century, Australia's land transport system needs comprehensive, far-sighted reform.

The AAA is calling on the major parties to:

- commit to a full review of the national land transport network, the policies that support its operation, and how it is funded in the long term – and to deliver a Land Transport White Paper by the end of 2020
- make immediate investments in policies, programs and infrastructure that will deliver much-needed upgrades to the transport system's capacities and operations.

The Land Transport White Paper

Australian transport policy is driving into unknown territory without a roadmap or a GPS.

With neither a vision nor a blueprint in place, the development and management of Australia's transport system is fragmented and unfocused.

Almost two decades into the 21st Century, we are haphazardly using 20th Century tools to hold together our national transport system.

Our transport system is not keeping pace with new technology.

Consequently, every year our infrastructure backlog grows, congestion becomes worse and transport costs rise.

Even worse, underinvesting in our transport system is costing lives.

It makes sense to invest more money into our transport system, because analysis shows that the returns from transport investment are greater than the costs.⁹⁶

But without a strategic plan that considers the inter-relationship of these various issues, it's easy to take a short-term, disjointed view and let important projects slip year after year.

The Land Transport White Paper

A Transport White Paper is long overdue

Australia has not had a comprehensive blueprint for developing, maintaining, managing and funding its land transport system since the 2004 AusLink White Paper.

Since then, successive Australian Governments have developed White Papers on many topics – including tourism, defence, aviation, energy, tax, foreign policy and northern Australia. Yet land transport – which is so central to our economy and our way of life – has slipped from view.

This has produced some regrettable consequences:

- There is no national recognition of the land transport system's critical role in Australia's economic wellbeing and the lives of Australian families.
- Transport programs have become increasingly fragmented because there is no overarching strategic direction for the national system.
- Policy gaps have emerged: key aspects of the transport system – such as road safety – do not receive the focus and funding needed to deliver real improvements.
- The transport system has not kept pace with technological change.
- Performance metrics have become less and less transparent to users and stakeholder groups, so there is no meaningful way to track how the system is performing.
- Transport taxes and charges have become out of date and disconnected from the transport system.
- Funding has become increasingly ad hoc and continues to lag behind revenue.

This cannot be allowed to continue.

How would a White Paper help?

Transport is critical to the nation's quality of life and economic wellbeing. A coordinated approach to how the system is planned, managed and delivered at a national level will:

- formally recognise land transport's important role in determining our economic growth and quality of life, and increase the Government's focus on this crucial sector
- set a strategic national framework around land transport policy and infrastructure, ensuring that all investment delivers value to transport users
- provide a formal mechanism for the Government to set and measure performance, and to hold states and territories accountable for ensuring that federal funding is tied to agreed outcomes
- establish a formal mechanism for long-term infrastructure programming and planning including infrastructure upgrades and investment to support emerging technology
- be the catalyst for structural reform of federal funding of land transport to deliver long-term sustainability.

A White Paper must:

1. clearly set out the policy framework and the outcomes that the land transport system is expected to deliver over the next 10 to 20 years
2. set out an agreed 10-year rolling infrastructure program
3. clearly outline how improvements to the system will be funded
4. clarify and modernise state-federal infrastructure funding and project prioritisation arrangements.

1. Clearly set out the policy framework and the outcomes that the land transport system is expected to deliver

The White Paper should aim to enhance the land transport system by focusing on four performance outcomes:

- safety
- fairly and transparently catering for all Australians
- efficiency
- enabling a productive economy.

The White Paper should clearly define performance metrics for each of these priority areas and outline national policies and programs to deliver against the performance metrics.

The metrics should be determined using performance data and be reported on annually through the Transport Infrastructure Council.

2. Set out an agreed 10-year rolling infrastructure program

The White Paper must include a rolling 10-year infrastructure program designed to deliver improvements against the outcomes of safety, fairness, efficiency and supporting a productive economy. The program would build on existing infrastructure programs, including:

- Infrastructure Australia's priority list
- Infrastructure Investment Program projects
- the Black Spots road safety program
- the Roads to Recovery Program
- other funded programs.

This rolling program should be updated annually to ensure a 10-year pipeline of projects to address the outcome areas.

Bilateral agreements with state and territory governments would ensure that project funding is tied to performance metrics outlined in the White Paper against the outcome areas of safety, fairness, efficiency and productivity.

To maximise value for money, projects at all levels should be underpinned by principles, including:

1. clear lines of responsibility for the development, selection and delivery of infrastructure projects between all levels of government
2. ensuring that project selection is based on delivering on at least one of the four outcomes of the White Paper (safety, fairness, efficiency, productivity)
3. public release of project business cases
4. mandatory post evaluation review of the development, selection, delivery and effectiveness of all projects, with public release
5. systematic use of data to monitor effectiveness of projects and their contribution to system outcomes.

3. Clearly outline how improvements to the system will be funded

Funding reform is critical to the White Paper.

The AAA believes that a new funding model should be based on a transition away from the ad-hoc, unfair, fuel excise-based funding model to a user-pays methodology for all road users, as this is the fairest way of ensuring that what people pay reflects their actual use of the system.

The White Paper should set out a pathway to a new funding stream for land transport infrastructure that is aligned to the performance metrics set out in the paper.

A recent AAA survey found that less than a third of consumers were aware that they paid fuel excise on every litre of fuel purchased, while an overwhelming majority (87 per cent) thought that more than 50 per cent of the fuel excise collected should be spent on roads and transport projects.⁹⁷

In addition, Transurban found that motorists using an older vehicle can pay almost twice as much fuel tax as others who drive the same distance.⁹⁸

The AAA would support all funding collected via a road user charge being paid into a federal Land Transport Infrastructure fund, established under legislation, to be used to upgrade and maintain the system.

In recent years, several government inquiries have recommended further investigation of road user charging reform costs, benefits and options.

In 2016, Infrastructure Australia, recommended a transition to a road user charging system as a means of funding Australia's transport infrastructure, noting that 'the current approach to charging for road use and investing in road infrastructure is unfair, unsustainable and inefficient.'⁹⁹

The Government responded by stating that it would 'establish a study, led by an eminent Australian, into the potential benefits and impacts of road user charging for light vehicles.'¹⁰⁰

As of January 2019, no progress had been made on establishing this study.

4. Clarify and modernise state-federal infrastructure funding and prioritisation arrangements

Developing a transport White Paper is a once-in-a-generation opportunity to reassess the Federal-State funding arrangements for Australia's land transport network.

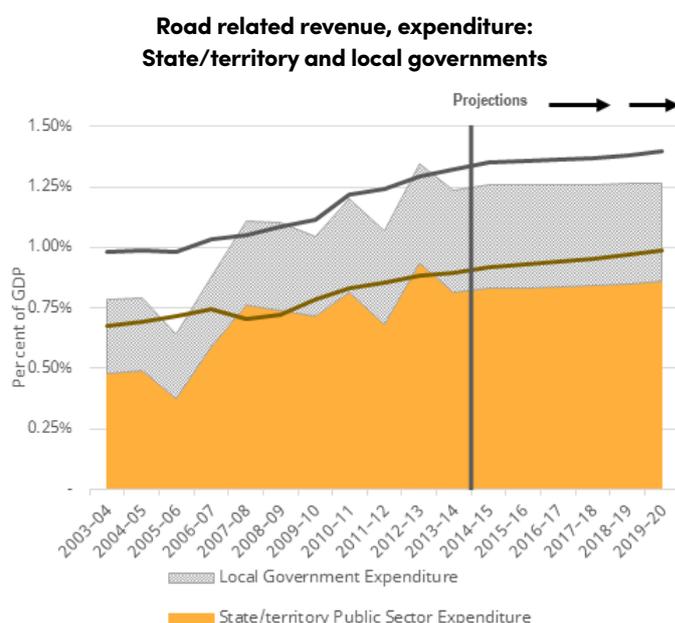
Of critical importance to this assessment is the lack of clarity around the Federal/State funding split for land transport projects. This can lead to delays and political point-scoring, both of which are counter-productive to the outcomes required from the transport network.¹⁰¹

Research by ACIL Allen for the AAA found that the states and territories are carrying the burden of transport funding and dealing with:

- underfunding by the Australian Government
- falling road-use related revenues
- fluctuations in funding driven by the federal election cycle.

This trend is expected to continue.¹⁰² The report also found that states and territories have on average returned all of the road-related taxes that they collect into transport.

ACIL Allen also found that to meet the land transport funding shortfall in the coming decade, the Australian Government must transparently earmark at least the full amount of its road-related revenue to a dedicated land transport fund.¹⁰³



SOURCE: BITRE, ABS, ACIL ALLEN

Immediate transport policy and infrastructure priorities

AAA acknowledges that a White Paper will not be finalised until the end of 2020.

But Australians can't afford to wait until then for Government to start improving the system.

Australia's transport problems are only growing worse the longer they are left unaddressed.

Pending the development of a White Paper, the AAA calls on the major political parties to commit to increased near-term investment in land transport projects, policies and programs to enhance safety, efficiency and affordability.

Road safety

The Cost of Road Trauma report commissioned by the AAA found that road trauma costs the Australian economy \$29.7 billion per annum.¹⁰⁴

According to the study, eliminating road trauma in 2015 would have delivered government savings equivalent to \$3.7 billion per year. Such an improvement in fiscal balance would enable government to reduce taxation and borrowing. It would also let governments undertake more expenditure that delivers economic benefits, such as investing in new transport infrastructure.

The AAA believes all levels of government must help reduce the national toll, but the Australian Government must play the leading role.

The AAA's National Road Safety Platform details the specific tools and levers available to the Australian Government to enhance road safety. The National Road Safety Platform advocates that the Australian Government assumes leadership in road safety and takes a greater role in:

- measuring success and identifying gaps in road safety through improved data collection
- promoting best practice research
- funding land transport infrastructure to enhance road safety
- supporting the introduction of safer vehicles into the Australian fleet.

The AAA welcomed the Government's establishment of the Inquiry into the National Road Safety Strategy 2011-2020 and supports the findings handed down on 12 September 2018.¹⁰⁵

The Inquiry confirms that road safety actions have not resulted in the targeted reduction in road trauma.

The Inquiry's report notes that failing to improve the current road safety situation will result in 12,000 people being killed and 360,000 injured over the next decade, costing the nation \$300 billion over the next decade.

The report also provides a blueprint for managing road safety in Australia, recommending changes to road safety management structures, systems and resourcing. The AAA believes that changes to the way we manage road safety are long overdue. We must put in place the right structures, systems and resourcing to make meaningful reductions in road trauma.

The following road safety actions must be progressed as a matter of urgency and rolled into the Land Transport White Paper:

Action	Detail
National Road Safety Strategy Inquiry's recommendations	The AAA urges the Australian Government to urgently act on the findings and recommendations of the Inquiry into the National Road Safety Strategy 2011-2020.
AusRAP (The Australian Road Assessment Program)	<p>The AAA urges the Australian Government to establish a dedicated road safety fund for implementation of mass action cost-effective safety upgrades, raise the national land transport network's overall star rating and use risk-based safety assessments to prioritise upgrades.</p> <p>The Australian Government should also require states and territories to use proven risk assessment methods, such as AusRAP, to effectively prioritise road safety in all infrastructure investment.</p>
Prioritising road safety	<p>Road safety must be prioritised within Infrastructure Australia's Assessment Framework. Road safety must be a key objective in Infrastructure Australia's statement of expectations.</p> <p>The Federal Government should use incentive payments in infrastructure agreements to enhance road safety outcomes.</p>
Black Spot funding	Each year, the Federal Black Spot Program prevents over 4,000 crashes and saves more than 30 lives. The Australian Government should permanently increase funding to \$100 million per year and improve and review program guidelines to ensure funding is committed and spent in the year it is allocated.
ANCAP (Australasian New Car Assessment Program)	<p>The Australian Government should support a safer vehicle fleet by:</p> <ul style="list-style-type: none"> • continued funding support for ANCAP to improve vehicle safety for all Australians • Directing the ACCC to develop a new advertising guideline for vehicle safety information • Mandating 5-star cars, with a date stamp of no more than three years old, for all Australian Government fleet purchases.
Developing a national metric for measuring serious injuries – continued focus	The Australian Government must ensure a national metric for measuring serious injuries caused by road crashes is delivered within the first year of the new parliament.
Annual reporting on the cost of road trauma	The Australian Government should prioritise work on developing a national willingness to pay methodology that would enable yearly reporting of the cost of road trauma.
Review of taxes and charges	The Australian Government should review taxes and charges, such as Luxury Car Tax, import tariffs, and Fringe Benefit Tax, to decrease the cost of new vehicles and encourage fleet renewal and increase market penetration of modern safety features.

Fairness and transparency

All Australians deserve affordable transport options that meet their daily needs.

To support all Australians equally, the transport system must be affordable, accessible, well-maintained, and widespread. Transport policy and regulation must be open and transparent.

A 2011 Australian Institute of Family Studies report found that groups such as families with young children, people with a disability and Indigenous Australians experience transport disadvantage. It is also a common problem in outer-urban areas, rural and remote Australia.¹⁰⁶

The report noted that 'transport disadvantage does not only concern difficulty *accessing* transport but also, in a country that is highly dependent on cars, difficulties associated with *maintaining private transport* (e.g., financial stress related to the cost of petrol, car insurance, car purchase, maintenance and repairs)'.¹⁰⁷

AAA research has found that:

- transport in Australia is no longer affordable for all Australians and is not delivering value for money
- road safety, road quality and transport choice are worse in the regions than in metropolitan areas
- fuel excise is unfair and faces an uncertain future.

The tariffs and other federal taxes applied to new cars make the cost of purchasing new cars more expensive. This then flows through to the cost of second-hand vehicles, making it difficult for people on low incomes to purchase newer, safer, more fuel-efficient vehicles. This leads to poorer road safety and impairs environmental and affordability outcomes. AAA calls on the Government to remove these taxes immediately from ultra-low fuel consumption vehicles, and then from the remaining light vehicle fleet over four years. This would help incentivise the uptake of ultra-low fuel consumption vehicles by making them more price competitive with traditional vehicles.

The AAA also calls on action to improve the fairness of the road user charging system. Under the existing fuel excise system, drivers of older or larger vehicles that use more fuel pay more per kilometre to use the same stretch of road as drivers of newer, smaller, more fuel-efficient vehicles. Meanwhile, as technology changes, ultra-low fuel consumption / non-internal combustion engine vehicles can use the road network at no cost, as they are outside the fuel excise system.

The AAA has long called for a more transparent land transport funding model based on a user-pays system for all road users. This structural reform must be a critical component of the Land Transport White Paper.

Fuel excise (currently 41.2 cents per litre) is today a proxy charge for road use. Moving to a market-based access system will allow future Governments to transparently deliver priority transport outcomes such as safety, cost of living, environmental and health benefits through future pricing mechanisms.

The AAA welcomed the Government's November 2016 commitment to establish a study, led by an eminent Australian, into the potential benefits and impacts of road user charging for light vehicles.¹⁰⁸ This study is yet to begin and the next Australian Government must prioritise this work as a matter of urgency, to determine how the nation could transition towards road user charging for all light vehicles, with the revenue raised dedicated to funding the transport system.

This study must consider how to ensure that the road user charging system is ready for the future, without stifling early adoption of new technology.

In planning a transition to a whole of market road user charging and funding system, government must consider:

- how the reform can be implemented in a staged manner, beginning with the work currently underway for heavy vehicles
- how to ensure that all vehicles are captured fairly in the new system
- the feasibility of bringing ultra-low fuel consumption vehicles into the system in the early stages, combined with measures to encourage early uptake of emerging technology through the immediate removal of luxury car tax and tariffs on these vehicles
- how to establish a dedicated national transport fund using the revenue raised from the road user charge
- the feasibility of bringing state and territory charges into the scheme in the future.

Any road user charge for ultra-low fuel consumption vehicles would need to be set at a rate that maintains existing incentives, yet also builds and normalises a new charging system. That is, ultra-low fuel consumption vehicles currently enjoy an effective road use "subsidy" equivalent to the fuel excise rate. A road-user charge for ultra-low fuel consumption vehicles could offer the opportunity to transparently maintain and actively promote this relative incentive.

A staged approach could incentivise early adoption, until such time that significant market penetration and/or price parity has been achieved in Australia.

Similar pricing incentives could be considered to deliver other policy imperatives, such as the increased uptake of vehicle technologies that deliver road safety benefits.

The AAA believes strongly that the Land Transport White Paper must set out also measurable performance metrics for transport fairness and transparency to ensure that all Australians have equal access to safe and efficient transport services and systems.

In the interim, the AAA calls on all parties to commit to the following policies:

Policy	Detail
Policies that put downward pressure on transport costs	Australian families' transport costs are continuing to rise. The AAA calls on all parties to refocus policy and decision-making to minimise transport costs.
Fuel costs	The AAA calls on the Australian Government continue its commitment to the ACCC's fuel monitoring activities.
Federal taxes	<p>The AAA calls on the next Australian government to remove the remaining 5 per cent tariff that applies vehicles imported from non-free-trade agreement countries and the luxury car tax. This will put downward pressure on new car prices, encourage fleet renewal and incentivise the uptake of new vehicle technology.</p> <p>This removal should:</p> <ul style="list-style-type: none"> • immediately remove these taxes for ultra-low fuel consumption vehicles, and • then phase the taxes out altogether over the next four years.
Road user pricing	<p>The AAA calls on the next Australian Government to instigate immediate steps towards a full structural reform of road user/funding system for all road users by:</p> <ul style="list-style-type: none"> • educating existing road users that they are currently paying a charge to use the road, by displaying the fuel excise amount on each fuel docket at the point of purchase • transitioning towards road user charging for all vehicles, starting with investigating a mechanism for bringing ultra-low fuel-consumption vehicles into the road user charging system followed by a full reform process for all light vehicles - implemented in a manner that ensures no disincentive to the take-up of ultra-low fuel consumption vehicles • immediately hypothecating at least 50 per cent of net fuel excise (and the full road user charge on ultra-low fuel consumption vehicles) into a dedicated land transport infrastructure fund.
Regional transport	<p>To improve regional transport access and safety outcomes, AAA calls on the Government to increase Roads to Recovery funding to help address the local government transport infrastructure backlog identified by the Australian Local Government Association.</p> <p>The AAA also calls on the government to fund regional infrastructure projects as outlined in the table at the end of this blueprint.</p>

Policy	Detail
Fair and competitive access to service and repair information	<p>The AAA is seeking parties commit to implement a mandatory agreement on access to service and repair information.</p> <p>Giving independent operators access to service and repair information supports competition in the aftermarket industry. This gives consumers more choice and reduces service and repair costs.</p> <p>The mandatory scheme must:</p> <ul style="list-style-type: none"> • require car manufacturers to provide independent operators with the same technical information and diagnostic tools given to their authorised networks in real time on commercially fair and reasonable terms • define all relevant terms, conditions and exclusions, such as what constitutes environmental, safety and security-related information • cover all car manufacturers who sell vehicles in Australia • stipulate that all relevant stakeholders can access an effective dispute resolution process that is subject to compulsory mediation and binding arbitration by an independent third-party • detail a process for secure release of environmental, safety and security-related technical information.
Improved consumer information, including real-world emissions testing	<p>Australians need a real-world vehicle emissions test program in Australia to measure the emissions performance and fuel consumption of new vehicles in real-world conditions and publish the results through the Government’s Green Vehicle Guide website.</p> <p>The AAA estimates that it would cost about \$3 million per year to test 60 vehicles per year. If 60 vehicles were to be tested each year, results would cover about 60 per cent of new vehicle sales within two years.</p> <p>The mandatory fuel consumption label and the Green Vehicle Guide website should incorporate star ratings and operating cost savings to consumers similar to those used in the US and New Zealand.</p>
Regional transport	<p>To improve regional transport access and safety outcomes, AAA calls on the Government to increase Roads to Recovery funding to help address the local government transport infrastructure backlog identified by the Australian Local Government Association.</p> <p>The AAA also calls on the government to fund regional infrastructure projects as outlined in the table at the end of this blueprint.</p>
Public transport planning and funding	<p>AAA calls on the Government to prioritise public transport infrastructure in its future funding programs to improve both metropolitan and regional services.</p>

Improving efficiency

The Land Transport White Paper must be aimed at maximising the efficiency of our transport system. This will not only deliver the best value for taxpayers' money, but will also support productivity, safety and fairness.

This will require progress in enabling and using:

- planning and network management strategies to curb urban congestion
- infrastructure planning that supports an efficient transport system, including long-term infrastructure pipelines, corridor acquisition and supportive urban development
- electric and ultra-low fuel consumption vehicles, autonomous vehicles and other emerging vehicle technologies that can support environmental outcomes, reduce costs and improve safety
- intelligent transport systems, big data and other network-based technological advances to improve traffic flows, reduce congestion, and enhance planning, evaluation and analysis
- policies to support environmental outcomes, including a balanced policy that curbs emissions without dramatically removing vehicle choice or imposing significant cost burdens on consumers.

Some emerging technologies, such as intelligent transport systems and automated vehicles, have potential to deliver significant efficiency benefits.

Smart infrastructure

Smart infrastructure – such as coordinated traffic lights, signals on motorway on-ramps or variable speed limits – that responds to changing conditions can significantly enhance traffic flows at relatively low cost. Real-time information can improve transport

system operators' demand management and help travellers plan more efficient journeys.

Investment in smart, technologically-based improvements would not only deliver best value from the transport network, but also ensure that the system can keep pace with change. The shift to increasing connectivity, autonomous vehicles, and platforms such as mobility as a service and ride sharing, will require targeted investment while offering data of unprecedented volume and quality to assess network performance and plan for future improvements.

The rise of electric and other alternative-fuelled vehicles will require dedicated charging and refuelling infrastructure, as well as regulatory oversight, to ensure the expanding use of these technologies is planned and delivered in a coordinated way that facilitates early adoption of the new technologies.

Automated vehicles

The potential benefits of wide-scale use of automated vehicles include better safety and reductions in congestion, emissions and cost of car ownership.¹⁰⁹ Some studies suggest that automated vehicles may also improve urban networking planning by collecting real-time information.¹¹⁰

The Land Transport White Paper must:

- set out measurable performance metrics for transport system efficiency
- recognise the growing role of emerging vehicle technologies – including electric and ultra-low fuel consumption vehicles and autonomous vehicles – and their potential for enhancing the land transport system's efficiency
- set realistic, balanced fuel standards that deliver genuine environmental benefits while recognising Australian motorists' unique needs and preferences.

In the interim, the AAA calls on all parties to commit to the following policies:

Policy	Detail
Use technology to enhance transport network management	Work to identify Intelligent Transport System projects alongside new infrastructure proposals to ensure we optimise the performance of our current infrastructure.
Improved project identification and delivery	<p>The AAA calls on the next Australian government to:</p> <ul style="list-style-type: none"> • take a long-term approach to infrastructure planning and delivery • strengthen project governance, including ensuring projects are delivering against performance criteria and are subject to full evaluation, and that business cases are publicly released and open to scrutiny • improve the transparency of project funding by building performance measure into funding agreements.
Emissions	<p>The AAA supports a CO2 standard for new light vehicles that achieves genuine environmental benefits while recognising Australian motorists' unique needs and preferences. This standard must be implemented as a package of measures addressing noxious emissions (Euro 6 standards) and fuel quality.</p> <p>Australia's CO2 standard must be:</p> <ul style="list-style-type: none"> • Designed specifically for the Australian light vehicle fleet • Introduced over a reasonable timeframe to avoid adverse impacts on vehicle choice and costs • Aligned with rates of emissions reduction in other jurisdictions • Flexible, with provisions for manufacturers to achieve targets through several mechanisms • Reviewed after several years of operation to ensure chosen targets remain appropriate. <p>Emissions policy and a CO2 standard must be supported by a real-world vehicle emissions test program in Australia to measure the emissions performance and fuel consumption of new vehicles in real-world conditions and publish the results through the Government's Green Vehicle Guide website.</p>
New Vehicle technologies	<p>The AAA believes the next Australian Government should support uptake of new vehicle technologies by:</p> <ul style="list-style-type: none"> • incentivising research and development in electric vehicle batteries and other associated technologies through the provision of grant funding and taxation exemptions • establishing an inter-governmental working group, representing governments, industry and consumers, tasked with establishing a roadmap for the co-ordinated transition to electric road transport, including the deployment of associated infrastructure and coordination of additional government reforms at federal and state level. <p>The AAA considers that research and development incentives could be funded through existing programs/funding mechanisms, for example the Clean Energy Finance Corporation, and would have minimal budget impact.</p>

Policy	Detail
New Vehicle technologies (cont.)	<p>The AAA also calls on the next Australian Government to investigate</p> <ul style="list-style-type: none"> • incentivising the uptake of ultra-low fuel consumption vehicles by removing federal taxes that disincentivise their purchase, including luxury car tax and import tariffs • transitioning to a full user-pays funding model for all light vehicles beginning with incorporating ultra-low fuel consumption vehicles into the road user funding system, via a distance-based road-user charge hypothecated directly to a transport infrastructure fund – implemented in a manner that ensures no disincentive to the take-up of ultra-low fuel consumption vehicles.

Automated Vehicles	<p>The Australian Government should:</p> <ul style="list-style-type: none"> • work with state and territory governments to incentivise the development, testing and roll-out of vehicles with increased automation including supporting further trials • seek to harmonise legislation that will ultimately allow these vehicles to operate on roads • support research projects that seek to better prepare all Australian governments for a sustainable future with highly automated and autonomous vehicles • publicise lessons learned through the trials through relevant intergovernmental bodies.
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Supporting a productive economy

Transport infrastructure is critical to national productivity. Efficient and effective movement of freight not only benefits the freight industry, but also other transport users, business owners, consumers and the national economy.

The final report of the Inquiry into National Freight and Supply Chain Priorities (provided to the Government in May 2018) identified five critical action areas that must be addressed to lift productivity:¹¹¹

- an integrated approach
- measurement of freight performance
- planning for current and future needs
- act to deliver priorities
- communicate the importance of freight.

The AAA supports the immediate focus on developing a 20-year national freight and supply chain strategy, as endorsed by the Transport Infrastructure Council in May 2018. This work must start immediately, and the findings must be integrated into the national Land Transport White Paper.

The AAA calls on all parties to help make the Australian economy more productive by committing to immediate action on the following freight initiatives:

Policy	Detail
Heavy Vehicle Road Reform (HVRR) program	Develop and implement reforms that establish a market linking the services heavy vehicle users receive and the charges they pay, and invest those charges back into heavy vehicle road services. Pursuing these reforms will generate between \$6.5 billion and \$13.3 billion in net present value over 20 years. ¹¹²
Infrastructure projects that build freight capacity	Immediately fund projects that will support the movement of freight, including: <ul style="list-style-type: none"> • Import/export freight • Inter and intra state freight • Urban freight
Planning for future freight movements	Develop a national freight and supply chain strategy, for future integration with the White Paper.

Immediate funding and accountability reforms

Long-term funding reform is a critical component of the Land Transport White Paper.

But it cannot wait until the White Paper process has been completed.

The AAA believes that near-term action is needed. A dedicated land transport infrastructure fund must be established to fund the policy and infrastructure initiatives that are required now.

At least 50 per cent of net fuel excise should be hypothecated into the fund and used to upgrade the nation's land transport system.

To ensure that tax payers get the best value for their money, accountability measures must also be incorporated into all funding. These include:

1. clear lines of responsibility within and between all levels of government for selecting, developing and delivering infrastructure projects
2. ensuring that project selection is based on delivering on at least one of White Paper's target outcomes: safety, fairness, efficiency and/or productivity
3. public release of project business cases
4. mandatory and publicly released post-evaluation reviews of the selection, development, delivery and effectiveness of all projects
5. systematic use of "big data" to monitor the effectiveness of projects and their contribution to safety, fairness, efficiency and/or productivity.

The Australian Government should work with the states and territories to ensure that business cases are developed to support a pipeline of infrastructure projects ready for delivery as funding becomes available through the fund.

Infrastructure

Australia needs rapid delivery of high-quality transport infrastructure projects that are consistent with the development of a world-class 21st Century transport system.

AAA member clubs have outlined the following priority projects that would enhance the capacity and operations of Australia's land transport system. These projects have been identified against the four system outcome areas identified for the Land Transport White Paper:

- safety
- fairness
- efficiency
- productivity.



Appendix: Infrastructure priorities

Project Location/ Name	Project Description	Estimated Cost	System outcome			
			Productivity	Fairness/ equity	Safety	Efficient system
NEW SOUTH WALES						
1 M1 Motorway extensions	SouthConnex Corridor (M1 Princes Motorway extension) and road upgrades to Sydney Airport and Port Botany.	\$10,000m	✓			
	M1 Pacific Motorway extension to Raymond Terrace.	\$4,000m	✓			
2 Local Council Road Maintenance Backlog	Increase Roads to Recovery Funding to address local road funding shortfalls.	\$2,300m		✓		
3 Northern Beaches Transport Corridor	Western Harbour Tunnel: Third road crossing Rozelle (north extension node of Westconnex) across Sydney Harbour to North Sydney.	\$8,000m	✓			
	Northern Beaches Link: Potential road, bus and rail options to improve connection to the Northern Beaches.					
4 Regional Highway Upgrade Package	Newell, Mitchell, Great Western, Barton & Kings Highway upgrades - major safety upgrades including duplication, overtaking lanes bypasses, flood mitigation on the Newell Highway and other safety enhancements.	\$8,000m	✓		✓	
5 Passenger Rail Upgrades	Western Line Rail Capacity Improvements: Connectivity between Parramatta and Sydney CBD, Access to Western Sydney Airport.	\$7,500m	✓			✓
	Sydney Metro: Rail connections from Chatswood to Bankstown and possible extensions to South West Sydney.	\$8,000m	✓			✓
	Newcastle - Sydney and Wollongong rail line upgrades: Rail connections between Newcastle, Wollongong and Sydney CBD.	\$5,000m	✓			✓
Total		\$52,800m				

Project Location/ Name	Project Description	Estimated Cost	System outcome			
			Productivity	Fairness/ equity	Safety	Efficient system
AUSTRALIAN CAPITAL TERRITORY						
1 Canberra Public Transport	Improve public transport capacity - Indicative Bus Transit Corridors Canberra CBD to Belconnen and Capital Hill to Queanbeyan	TBA	✓			✓
2 Canberra Metro Stage 2	Secure funding/procurement commitments for Metro Stage 2, linking Metro with major town centres and Canberra Airport.	TBA	✓			
3 Canberra CBD to North corridor	Upgrade Canberra CBD to North corridor to reduce congestion.	TBA	✓			
Total		TBA				
VICTORIA						
1 North East Link	Fund the construction of the North East Link, connecting the M80 Metropolitan Ring Road to the M3 Eastern Freeway and Eastlink.	\$16,000m	✓			✓
2 Monash Freeway widening.	Fund the Stage 2 widening of the Monash Freeway to Pakenham, including managed motorway technology.	\$750m	✓			✓
3 Metro Rail Tunnel 2 business case	Prepare the business case for Melbourne Metro 2	\$200m	✓			
4 Regional Highway Duplications, Safety and Maintenance package	Accelerate the Western Highway duplication and bypasses	\$450m	✓			✓
	Implement regional highways AusRAP safety and maintenance program;	\$2,000m				✓
5 Melbourne Airport Rail Link	Construction of a high speed direct connection between Melbourne CBD and Melbourne Airport	\$10,000m	✓			
Total		\$29,400m				

Project Location/ Name	Project Description	Estimated Cost	System outcome			
			Productivity	Fairness/ equity	Safety	Efficient system
QUEENSLAND						
1 Bruce and Warrego Highway	Commit funding to complete the 10-year Bruce Highway Upgrade Program	\$8,500m	✓		✓	✓
	Commit funding and partner with the Queensland Government to establish and run the Bruce Highway Trust (\$800 million federal contribution)	\$1,000m				
	Commit funding to the Warrego Highway project. This includes major upgrades to the highway between Toowoomba and Miles as well as Ipswich to Toowoomba safety improvements	\$1,200m	✓		✓	✓
2 Pacific Motorway	Complete upgrade to six lanes between Varsity Lakes and Tugun. Commit additional funding to upgrade to eight lanes from Gateway Motorway to Loganholme and continue to upgrade interchanges between Brisbane and Gold Coast to improve safety and capacity.	\$5,500m	✓		✓	✓
	Commit funding to the development of the Coomera Conector from Stapylton-Jacobs Well Road to Nerang-Broadbeach Road as a multi-modal corridor to relieve pressure on the M1	\$2,400m	✓			✓
3 Rail Infrastructure	Commit funding to deliver Cross River Rail to provide a second river crossing and add capacity in inner Brisbane	\$5,300m	✓			
	Commit all funding to complete Beerburrum to Nambour Rail Upgrade to take pressure off the Bruce Highway	\$664m				
4 Regional Roads	Commit funding for regional roads in Queensland as prioritised through multiple programs including (but not limited to) the Inland Queensland Road Network Strategy (IQRNS), Roads to Recovery, Northern Australia Roads and Beef Roads Program	\$5,000m	✓			

Project Location/ Name	Project Description	Estimated Cost	System outcome			
			Productivity	Fairness/ equity	Safety	Efficient system
QUEENSLAND (CONT.)						
5 Australian Road Assessment Program (AusRAP)	Commit annual funding dedicated to a mass action safety program of low-cost, high impact safety treatments to be delivered on State roads and higher order Local Government roads.	\$350m	✓			✓
Total		\$29,914m				
SOUTH AUSTRALIA						
1 North-South Corridor	Fund construction of the remaining sections of the North-South Corridor, between Ashwin Parade and Tonsley Boulevard.	\$2,900m	✓			✓
2 Augusta Highway	Staged duplication of the Augusta Highway between Copper Coast Highway and Port Augusta to improve safety and future productivity on this corridor.	\$2,000m	✓			✓
3 Dukes Highway	Staged duplication of the Dukes Highway between Tailem Bend and the South Australia/ Victoria border to improve safety, productivity, and future proof this corridor for autonomous vehicle trials.	\$2,000m	✓			✓
4 Riddoch Highway	Include this highway on the National Highway Network to ensure ongoing federal funding is made available to maintain and upgrade the route. Immediate upgrade required to achieve a minimum 3 star AusRAP rating to meet the agreed international minimum benchmark.	\$60m	✓			
5 Grade separations of major level crossings	Grade separate the level crossings on the main rail corridor at intersections where arterial roads intersect with rail freight corridors, including Cross Road, Torrens Road, Kings Road, and Waterloo Corner Road.	\$200m	✓			✓
Total		\$7,160m				

Project Location/ Name	Project Description	Estimated Cost	System outcome			
			Productivity	Fairness/ equity	Safety	Efficient system
WESTERN AUSTRALIA						
1 Public transport infrastructure	Commit funding towards light rail from UWA/ QEII to Canning Bridge (via the CBD and Bentley / Curtin).	\$1800m*	✓			
	Commit funding towards light rail to connect Scarborough Beach / Stirling to Glendalough and onto the Perth CBD to enhance access to strategically-important centres for employment, retail and tourism.	\$1100m*	✓			
	Commit funding towards heavy rail between Perth city centre and Morley Strategic Centre.	\$2,800m	✓			
2 Rating and improving the safety of roads	Commit funding to improve the safety of WA's strategically important arterial roads, including through the Federal Blackspot Program and implementation of the remaining aspects of the Safer Roads Investment Plan for the WA National Highway Network, as rated in 2013.	\$800m			✓	✓
	Commit funding towards a rolling program to rate the safety of strategic arterial roads across the State to inform the development of a Safer Road Investment Plan(s) of essential safety treatments.	\$0.65m			✓	
3 Technology solutions to optimise and future proof the transport system	Commit funding to prepare for a future with automated and connected vehicles, helping to position WA and the nation to capitalise on advancements in technology and future proof new infrastructure.	\$50m				✓
	Commit funding towards Intelligent Transport Systems, including technologies to enable road transport optimisation and real-time traveller information to maximise the value of existing and future transport infrastructure investment.	\$250m				✓
	Commit funding to implement a program of measures to optimise Perth's heavy rail system (including signalling system and Station upgrades), to make best use of existing rail assets and cater for increasing demands.	\$1,000m				✓

*Synergies between the two schemes could reduce costs

Project Location/ Name	Project Description	Estimated Cost	System outcome			
			Productivity	Fairness/ equity	Safety	Efficient system
WESTERN AUSTRALIA (CONT.)						
4 Major highway grade separations and road upgrades	Continue to commit funding towards the rolling program of grade separations and associated upgrades on WA's major highways to bring nationally significant corridors up to freeway standard.	\$260m	✓			✓
	Commit funding towards the completion of Albany Ring Road (stages two and three) to provide an efficient and safe road network around Albany.	\$137m	✓		✓	✓
	Commit funding towards a rolling program of road / rail grade separations to remove level crossings (including Caledonian Avenue in Maylands, Oats Street in Carlisle and Wharf Street in Cannington) and deliver associated urban realm enhancements, improving safety, road and public transport efficiency and amenity.	\$1,500m	✓		✓	✓
5 Cycling infrastructure projects	Commit funding for green bridges to address severance issues and increase cycling catchments for the Perth city centre and major activity centres, delivering safety, health and productivity benefits.	\$300m		✓	✓	✓
	Commit funding towards the completion of Perth's Principal Shared Path (PSP) network, to provide continuous and safe cycling infrastructure within a 15km radius of the Perth city centre and strategically important connectors to activity centres and green bridges.	\$70m				✓
Total		\$10,068				
TASMANIA						
1 Sandfly/Huon Highway intersection	Safety upgrades to highway intersection to improve line of sight and traffic merges.	\$21m	✓		✓	
2 Bass Highway improvements between Wynyard and Marrawah	Increase highway to a minimum AusRap 3 star rating, in addition to \$400 million for roads of strategic importance funding already committed.	\$50m	✓		✓	✓

Project Location/ Name	Project Description	Estimated Cost	System outcome			
			Productivity	Fairness/ equity	Safety	Efficient system
TASMANIA (CONT.)						
3 10-year Greater Hobart Mobility Plan	Increase capacity and improve traffic flow around key congestion areas such as the Southern Outlet, Brooker Highway, Main Road, Macquarie Street, Davey Street, the Tasman Bridge, the Midway Point/Sorell causways and airport roundabout. Improvements to active/public transport infrastructure and future mobility technologies to make Hobart a smart city. Improve safety and traffic flow from Brooker Highway onto and through Domain Highway.	\$850m	✓		✓	✓
4 Flyover on East Tamar Highway at Mowbray	Improve safety issues such as head and side on crashes on this road.	\$25m			✓	✓
5 Tamar Bridge	Feasibility, development, design and construction of a new Tamar Bridge for Launceston	\$300m	✓			✓
Total		\$1,246m				
NORTHERN TERRITORY						
Stuart Highway	Upgrade the Stuart Highway from Darwin to Pine Creek.	\$110m	✓			✓
Total		\$110m				
Australian Total		\$130,698m				



Endnotes

- 1 Australian Automobile Association (October 2018). Road Congestion in Australia. Accessed at <https://www.aaa.asn.au/wp-content/uploads/2018/10/AAA-Congestion-Report-2018-FINAL.pdf>.
- 2 Australian Automobile Association (September 2018). Transport Affordability Index. Accessed at <https://www.aaa.asn.au/wp-content/uploads/2018/11/AAA-Affordability-Index-Q3-2018.pdf>.
- 3 Citi (24 June 2018, p.1). Industry Focus: Global Infrastructure Digest Issue VIII. Updated using CPI Inflation Calculator June 2007 to June 2018.
- 4 Australian Automobile Association (May 2018). AAA Federal Budget Brief. Accessed at <https://www.aaa.asn.au/wp-content/uploads/2018/05/AAA-Brief-Federal-Budget-2018.pdf>.
- 5 World Bank (2017). Population Growth (annual %). Accessed at <https://data.worldbank.org/indicator/SP.POP.GROW>.
- 6 The daily figures are AAA extrapolations from Australian Institute of Health and Welfare (August 2018). Hospitalised injury due to land transport crashes. Accessed at <https://www.aihw.gov.au/reports/injury/hospitalised-injury-due-to-land-transport-crashes/contents/table-of-contents>.
- 7 Bureau of Infrastructure, Transport and Regional Economics (2019, 17 January). Road Safety Statistics. Accessed at <https://bitre.gov.au/statistics/safety/index.aspx>.
- 8 Australian Automobile Association (September 2017). Cost of road trauma in Australia 2015. Accessed at https://www.aaa.asn.au/wp-content/uploads/2018/03/AAA-ECON_Cost-of-road-trauma-summary-report_Sep-2017.pdf.
- 9 Australian Automobile Association (December 2018). Benchmarking the Performance of the National Road Safety Strategy.
- 10 Productivity Commission (2017). Shifting the Dial: 5 Year Productivity Review, Report No. 84. Accessed at <https://www.pc.gov.au/inquiries/completed/productivity-review/report>.
- 11 Australian Automobile Association (2016). Infrastructure Funding Report Card. Accessed at <https://www.aaa.asn.au/wp-content/uploads/2018/03/aaa-infrastructure-report-card-election-2016.pdf>.
- 12 Bureau of Infrastructure, Transport and Regional Economics (2015). Information Sheet 74: Traffic and congestion cost trends for Australian capital cities. The scenarios quoted are the Lower and Upper Baseline, respectively.
- 13 Australian Automobile Association (October, 2018). Road Congestion in Australia.
- 14 Australian Automobile Association (2018, p.2). Surging transport costs are squeezing Australian households. Accessed at <https://www.aaa.asn.au/2018/08/10/surging-transport-costs-are-squeezing-australian-households/>.
- 15 Australian Automobile Association (September 2017). Transport Affordability Index. Accessed at https://www.aaa.asn.au/wp-content/uploads/2018/03/AAA-Affordability-Index_Q3-2017.pdf; Australian Automobile Association (September 2018). Transport Affordability Index.
- 16 Australian Automobile Association (September 2018). Transport Affordability Index
- 17 Australian Automobile Association (September 2018). Transport Affordability Index
- 18 Commonwealth of Australia (2018). Budget Paper 1: Federal Budget 2018-19. Accessed at https://www.budget.gov.au/2018-19/content/bp1/download/BP1_full.pdf.
- 19 Australian Automobile Association (May 2018). AAA Federal Budget Brief.
- 20 World Bank (2017). Population Growth (annual %).
- 21 Australian Bureau of Statistics (2018). 3218.0 - Regional Population Growth, Australia, 2016-17. Accessed at <http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/3218.0Main+Features12016-17?OpenDocument>.
- 22 Bureau of Transport, Infrastructure and Regional Economics (2015). Information Sheet 55: Infrastructure, Transport and Productivity. Accessed at https://bitre.gov.au/publications/2014/files/is_055.pdf.
- 23 Crosby Textor (July 2018).
- 24 Australian Automobile Association (September 2018). Transport Affordability Index.
- 25 Bureau of Transport, Infrastructure and Regional Economics (2019, 17 January). Road Safety Statistics. Accessed at <https://bitre.gov.au/statistics/safety/index.aspx>
- 26 Australian Automobile Association (September 2017). National Road Safety Platform. Accessed at https://www.aaa.asn.au/wp-content/uploads/2018/03/AAA-National-Road-Safety-Platform_Sep-2017.pdf.
- 27 Bureau of Infrastructure, Transport and Regional Economics (August 2018). Hospitalised Injury. Accessed at <https://bitre.gov.au/publications/ongoing/hospitalised-injury.aspx>.

- 28 These monthly, weekly and daily figures are AAA extrapolations from: Bureau of Infrastructure, Transport and Regional Economics (August 2018). Hospitalised Injury.
- 29 Economic Connections (September 2017). Cost of road trauma in Australia 2015.
- 30 Australian Automobile Association (September 2018. p.4). Transport Affordability Index.
- 31 Australian Automobile Association (May 2018). AAA Federal Budget Brief.
- 32 Australian Automobile Association (May 2018). AAA Federal Budget Brief.
- 33 Productivity Commission (2017). Shifting the Dial: 5 Year Productivity Review, Report No. 84.
- 34 Bureau of Infrastructure, Transport and Regional Economics (2015). Information Sheet 74: Traffic and congestion cost trends for Australian capital cities.
- 35 ACIL Allen (2016). Land Transport Funding: Transitioning to a better model. Accessed at <https://www.aaa.asn.au/wp-content/uploads/2018/03/1-acil-allen-land-transport-funding-transitioning-to-a-better-model.pdf>.
- 36 Australian Automobile Association (2018). Road Congestion in Australia.
- 37 Citi (24 June 2018, p.1). Industry Focus: Global Infrastructure Digest Issue VIII. Updated using CPI Inflation Calculator June 2007 to June 2018.
- 38 Australian Automobile Association (January 2017). 2017-18 Pre-Budget Submission. Accessed at https://www.aaa.asn.au/wp-content/uploads/2018/03/AAA-Pre-budget-submission_2017-18.pdf.
- 39 ACIL Allen (2016). Land Transport Funding: Transitioning to a better model.
- 40 Department of Infrastructure and Regional Development (2016, p.24). Trends: Transport and Australia's Development 2040 and Beyond. Accessed at https://infrastructure.gov.au/infrastructure/publications/files/Trends_to_2040.pdf.
- 41 Bureau of Infrastructure, Transport and Regional Economics (December 2018). Road Deaths Australia December 2018 Accessed at https://bitre.gov.au/publications/ongoing/rda/files/RDA_Dec_2018.pdf
- 42 Australian Automobile Association (December 2018). Benchmarking the Performance of The National Road Safety Strategy.
- 43 Economic Connections (September 2017). Cost of road trauma in Australia 2015.
- 44 Economic Connections (September 2017). Cost of road trauma in Australia 2015.
- 45 Bureau of Infrastructure, Transport and Regional Economics (August 2018). Hospitalised Injury.
- 46 Australian Automobile Association (January 2018). National Road Safety Strategy Progress Report. Accessed at <https://www.aaa.asn.au/wp-content/uploads/2018/03/NRSS-progress-factsheet.pdf>.
- 47 Australian Automobile Association (September 2018). Transport Affordability Index.
- 48 Australian Automobile Association (September 2018). Transport Affordability Index.; Australian Automobile Association (September 2017). Transport Affordability Index. Accessed at https://www.aaa.asn.au/wp-content/uploads/2018/03/AAA-Affordability-Index_Q3-2017.pdf.
- 49 Australian Automobile Association (September 2018). Transport Affordability Index.
- 53 Australian Competition and Consumer Commission (2017). New Car Retailing Industry: A market study by the ACCC. Accessed at <https://www.accc.gov.au/focus-areas/market-studies/new-car-retailing-industry-market-study/final-report>
- 50 Bureau of Transport, Infrastructure and Regional Economics (2018, p.49). Australian Infrastructure Statistics - Yearbook 2018. Accessed at <https://bitre.gov.au/publications/2018/files/infrastructure-statistics-yearbook-2018.pdf>
- 51 Australian Automobile Association (December 2017). 2018-19 Pre-Budget Submission. Accessed at https://www.aaa.asn.au/wp-content/uploads/2018/03/AAA-Pre-budget-submission_2018-19-single-pages.pdf.
- 52 Australian Automobile Association (May 2018). AAA Federal Budget Brief.
- 54 Australian Automobile Association (May 2018). AAA Federal Budget Brief.
- 55 Australian Automobile Association (December 2017). Benefits of reducing the age of Australia's light vehicle fleet. Accessed at https://www.aaa.asn.au/wp-content/uploads/2018/03/AAA-ECON_Benefits-of-reducing-fleet-age-summary-report_Dec-2017.pdf.
- 56 Economic Connections (December 2017). Benefits of reducing the age of Australia's light vehicle fleet.
- 57 ANCAP (May 2017). New Analysis: Fatality rate four times higher in an older vehicle. Accessed at <http://www.ancap.com.au/media-and-gallery/releases/new-analysis-fatality-rate-four-times-higher-in-an-older-vehicle-0e2f9e>.
- 58 Australian Automobile Association (December 2017). Benefits of reducing the age of Australia's light vehicle fleet.

- 59 Australian Automobile Association (December 2017). Benefits of reducing the age of Australia's light vehicle fleet.
- 62 Department of Infrastructure and Regional Development (2016, p.19). Trends: Transport and Australia's Development 2040 and Beyond.
- 63 Bureau of Infrastructure, Transport and Regional Economics (2015). Information Sheet 74: Traffic and congestion cost trends for Australian capital cities.
- 64 Department of Infrastructure and Regional Development (2016, p.19). Trends: Transport and Australia's Development 2040 and Beyond.
- 65 Australian Automobile Association (October 2018). Road Congestion in Australia.
- 60 Australian Bureau of Statistics (2018). 2071.0.55.001 - Census of Population and Housing: Commuting to Work - More Stories from the Census, 2016. Accessed at <http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/2071.0.55.001-2016-Main%20Features-Commuting%20Distance%20for%20Australia-1>.
- 61 Australian Bureau of Statistics (2018). 2071.0.55.001 - Census of Population and Housing: Commuting to Work - More Stories from the Census, 2016.
- 66 Department of Infrastructure and Regional Development (2016, p.36). Trends: Transport and Australia's Development 2040 and Beyond.
- 67 Department of Infrastructure and Regional Development (2017). Road Safety in Australia. Accessed at https://infrastructure.gov.au/infrastructure/publications/files/Trends_Infrastructure_and_Transport_to_2030.pdf.
- 68 Department of Infrastructure and Regional Development (2018, p.6). International road safety comparisons 2016. Accessed at https://bitre.gov.au/publications/ongoing/files/International_2016_III.pdf.
- 69 Bureau of Infrastructure, Transport and Regional Economics (2015). Information Sheet 73: Australia's commuting distance: cities and regions. Accessed at https://bitre.gov.au/publications/2015/files/is_073.pdf.
- 70 Australian Automobile Association (2018). Transport Quality Index Survey. Unpublished.
- 71 Department of Infrastructure and Regional Development (2016, p.19). Trends: Transport and Australia's Development 2040 and Beyond.
- 72 Department of Infrastructure and Regional Development (2016, p.19). Trends: Transport and Australia's Development 2040 and Beyond.
- 73 Transport for New South Wales (2018). Train Loads. Accessed at <https://www.transport.nsw.gov.au/data-and-research/passenger-travel/train-patronage/train-loads>.
- 74 The Age (7 October 2017). Less train overcrowding, but it comes at a cost: your seat. Accessed at <https://www.theage.com.au/national/victoria/less-train-overcrowding-but-it-comes-at-a-cost-your-seat-20171007-gyw7j2.html>.
- 75 ABC News (7 February 2018). Big jump in Victorian commuters puts stress on public transport network. Accessed at <https://www.abc.net.au/news/2018-02-07/big-jump-in-commuters-bendigo-to-melbourne-stresses-system/9397208>.
- 76 Wollongong City Council (2016). Wollongong City Residents' place of work. Accessed at <https://profile.id.com.au/wollongong/residents>.
- 77 Department of Infrastructure and Regional Development (2016, p.38). Trends: Transport and Australia's Development 2040 and Beyond.
- 78 Citi (24 June 2008, p.1). Industry Focus: Global Infrastructure Digest Issue VIII. Updated using CPI Inflation Calculator June 2007 to June 2018.
- 79 Australian Local Government Association (December 2017, p.18). 2018-19 Federal Budget Submission - invest in Australian communities: make it local. Accessed at https://alga.asn.au/site/misc/alga/downloads/submissions/2018/ALGA_Budget_Submission_2018_2019.pdf.
- 80 Commonwealth of Australia (2018). Inquiry into National Freight and Supply Chain Priorities Report. Accessed at https://infrastructure.gov.au/transport/freight/freight-supply-chain-priorities/files/Inquiry_Report.pdf.
- 81 Commonwealth of Australia (2018, p.5). Inquiry into National Freight and Supply Chain Priorities Report.
- 82 Department of Infrastructure and Regional Development (2016). Trends: Transport and Australia's Development 2040 and Beyond.
- 83 Commonwealth of Australia (2018, p.3). Inquiry into National Freight and Supply Chain Priorities Report.
- 84 Commonwealth of Australia (2018, p.3). Inquiry into National Freight and Supply Chain Priorities Report.
- 85 Commonwealth of Australia (2018, p.12). Inquiry into National Freight and Supply Chain Priorities Report.
- 86 Ministers for the Department of Industry, Innovation and Science (2 November 2015). Turnbull Government to review approach to vehicle emissions. Accessed at <https://www.minister.industry.gov.au/ministers/frydenberg/media-releases/turnbull-government-review-approach-vehicle-emissions>.
- 87 U.S. Department of Transportation (2015). Traffic Safety Facts: Critical Reasons for Crashes Investigated in the National Motor Vehicle Crash Causation Survey. Accessed at <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812115>.

- 88 National Transport Commission (June 2017). Regulatory options to assure automated vehicle safety in Australia: Discussion Paper. Accessed at [https://www.ntc.gov.au/Media/Reports/\(6608D654-9FBD-175D-D067-AC80AECE5FB8\).pdf](https://www.ntc.gov.au/Media/Reports/(6608D654-9FBD-175D-D067-AC80AECE5FB8).pdf).
- 89 ACIL Allen (2016). Land Transport Funding: Transitioning to a better model.
- 90 Australian Automobile Association (May 2018). AAA Federal Budget Brief.
- 91 Department of Infrastructure and Regional Development (2016, p.27). Trends: Transport and Australia's Development 2040 and Beyond.
- 92 Australian Government (2018). Excise rates for fuel. Accessed at <https://www.ato.gov.au/business/excise-and-excise-equivalent-goods/fuel-excise/excise-rates-for-fuel/>.
- 93 CSIRO (May 2015). Projecting future road transport revenues 2015-2050. Accessed at [https://www.ntc.gov.au/Media/Reports/\(68BBFA97-3FAF-4266-A478-5ED625F7559E\).pdf](https://www.ntc.gov.au/Media/Reports/(68BBFA97-3FAF-4266-A478-5ED625F7559E).pdf).
- 94 CSIRO (May 2015). Projecting future road transport revenues 2015-2050.
- 95 Department of Infrastructure and Regional Development (2016, pp.26-27). Trends: Transport and Australia's Development 2040 and Beyond.
- 96 Bureau of Transport, Infrastructure and Regional Economics (2015). Information Sheet 55: Infrastructure, Transport and Productivity.
- 97 AAA commissioned market research (2018).
- 98 Transurban (October 2016). Changed conditions ahead: Melbourne road usage study. Accessed at <https://changedconditionsahead.com/>.
- 99 Infrastructure Australia (2016, p.84). Australian Infrastructure Plan: Priorities and reforms for our nation's future. Accessed at https://infrastructureaustralia.gov.au/policy-publications/publications/files/Australian_Infrastructure_Plan.pdf.
- 100 Minister for Urban Infrastructure and Cities (2 November 2016). Infrastructure Australia 15 Year Plan to guide key infrastructure policy directions for Turnbull Government. Accessed at https://minister.infrastructure.gov.au/pf/releases/2016/November/pf081_2016.aspx.
- 101 The Courier Mail (22 June 2016). LNP M1 upgrade project doubt as State Government baulks at a 50-50 funding split as mayor calls for PM to increase funding to 80 per cent. Accessed at <https://www.couriermail.com.au/questnews/logan/lnp-m1-upgrade-project-doubt-as-state-government-balks-at-a-5050-funding-split/news-story/05a7e0e5e1b788544c91083d0dcbac34>.
- 102 ACIL Allen (2016). Land Transport Funding: Transitioning to a better model.
- 103 ACIL Allen (2016). Land Transport Funding: Transitioning to a better model.
- 104 Australian Automobile Association (September 2017). Cost of road trauma in Australia 2015.
- 105 Woolley, J. & Crozier, J. (September 2018). Inquiry into the National Road Safety Strategy 2011-2020. Accessed at https://roadsafety.gov.au/nrss/files/NRSS_Inquiry_Final_Report_September_2018_v2.pdf.
- 106 Australian Institute of Family Studies (2011, p.1). The relationship between transport and disadvantage in Australia. Accessed at <https://aifs.gov.au/cfca/sites/default/files/publication-documents/rs4.pdf>
- 107 Australian Institute of Family Studies (2011, p.2). The relationship between transport and disadvantage in Australia.
- 108 The Hon Paul Fletcher MP, Minister for Urban Infrastructure and Cities (24 November 2016). Media Release: Infrastructure Australia 15 Year Plan to guide key infrastructure policy directions for Turnbull Government. Accessed at https://minister.infrastructure.gov.au/pf/releases/2016/November/pf081_2016.aspx.
- 109 Bradlow, H. & Jayachandra, A. (2015). How Digital Infrastructure can substitute for physical infrastructure. Accessed at https://united-states-studies-centre.s3.amazonaws.com/attache/4f/9e/24/58/61/1b/c8/6c/17/ec/c9/ab/6f/ed/64/4d/1507_Digital_Infrastructure_Report.pdf.
- 110 Infrastructure Partnerships Australia (2017). Automated Vehicles: Do we know which road to take?. Accessed at <http://infrastructure.org.au/wp-content/uploads/2017/09/AV-paper-FINAL.pdf>.
- 111 Commonwealth of Australia (2018). Inquiry into National Freight and Supply Chain Priorities Report.
- 112 Transport and Infrastructure Council (2018). Heavy Vehicle Road Reform. Accessed at https://transportinfrastructurecouncil.gov.au/publications/heavy_vehicle_road_reform.aspx.

Mailing Address:
GPO Box 1555
Canberra ACT 2601

P 02 6247 7311
T @aaacomms
W www.aaa.asn.au

Address:
103 Northbourne Ave
Canberra ACT 2601

