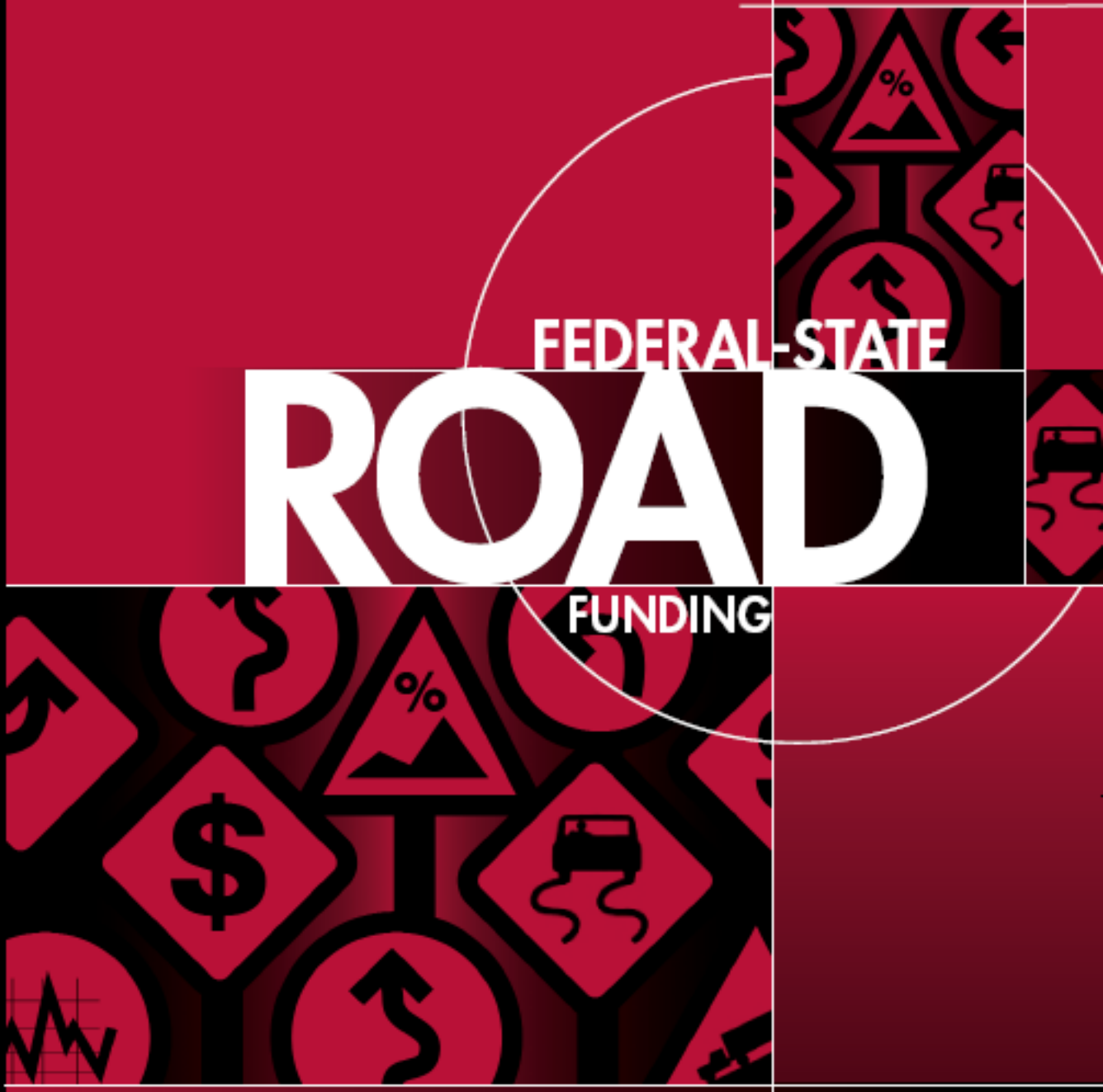
PARLIAMENT OF VICTORIA

ROAD SAFETY COMMITTEE INQUIRY INTO FEDERAL-STATE ROAD FUNDING ARRANGEMENTS SEPTEMBER 2010




ROAD SAFETY COMMITTEE

# INQUIRY INTO FEDERAL-STATE ROAD FUNDING ARRANGEMENTS

SEPTEMBER 2010

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BILL TILLEY, MP
FROM 4 JUNE 2009

IAN TREZISE, MP

PAUL WELLER, MP


**Road Safety Committee**

# Inquiry into Federal-State Road Funding Arrangements

September 2010

Date of Adoption 27 August 2010

# Inquiry into Federal-State Road Funding Arrangements

## Report of the Road Safety Committee on the Inquiry into Federal-State Road Funding Arrangements

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# Committee Members

This Inquiry was conducted during the term of the 56th Parliament.

## Committee Members

| | |
|---|---|
| Mr John Eren, MP | Chair |
| Mr David Koch, MLC | Deputy Chair |
| Mr Craig Langdon, MP | Until 25 August 2010 |
| Mr Shaun Leane, MLC | |
| Mr Bill Tilley, MP | From 4 June 2009 |
| Mr Ian Trezise, MP | |
| Mr Paul Weller, MP | |

## Secretariat

| | |
|---|---|
| Ms Alexandra Douglas | Executive Officer |
| Mr Nathan Bunt | Principal Research Officer |
| Mr Jason Boulter | Research Officer until 2 June 2010 |
| Ms Christianne Castro | Office Manager from 10 February 2010 |

# The Road Safety Committee

The Victorian Road Safety Committee is constituted under the *Parliamentary Committees Act* 2003, as amended.

The Committee comprises seven Members of Parliament drawn from both houses and all parties. The Chair is elected by Members of the Committee.

Section 15 of the *Parliamentary Committees Act* 2003, describes the functions of the Committee as:

> The functions of the Road Safety Committee are, if so required or permitted under this Act, to inquire into, consider and report to the Parliament on any proposal, matter or thing concerned with –
>
> (a) road trauma;
>
> (b) safety on roads and related matters.

## Committee Address


Address: Parliament House
Spring Street
East Melbourne Victoria 3002

Telephone: 03 8682 2846

Facsimile: 03 8682 2818

Email: rsc@parliament.vic.gov.au

Internet: http://www.parliament.vic.gov.au/rsc

# Terms of Reference

To the Road Safety Committee – for inquiry, consideration and report no later than 30 September 2008* on Federal – State road funding arrangements – and the Committee should:

a) review current arrangements in Australia;

b) assess the current arrangements in Australia in respect of economic efficiency and equity;

c) make recommendations for improving Federal – State road funding arrangements in Australia.

1 March 2007

* Note: The reporting date was extended to 1 September 2010 by resolution of the Legislative Assembly on 22 June 2010.

# Chair's Foreword

So much of our way of life depends on roads that we often take them for granted. Yet, roads provide us with far more than a means of travel and of transporting goods and services. As any driver will tell you, a good road is as much about the journey as the destination. Likewise, we all want to travel on our roads with a minimum of delay or hassle and, above all, to arrive safely.

Accordingly, all tiers of government should be working towards making this possible and this should be the case right across Australia's vast road network, regardless of where people live, work or seek their leisure.

However, without adequate funding levels, we cannot build or maintain the roads that we need. What is more, without road funding arrangements that are economically efficient and equitable, we cannot ensure that the available funds are spent on the roads and communities where they are needed most.

The history of Federal-State funding arrangements is a long and, at times, convoluted one. This is particularly true of Federal–State road funding arrangements. Further, these arrangements have been characterised by insufficient levels of Federal funding and by a lack of coordination between Federal and State governments.

This situation is largely a legacy of Australia's constitutional arrangements – while the Commonwealth raises by far the greatest share of revenue, it has no responsibility to fund roads under the Australian Constitution. Consequently, Federal road funding to our state and local governments has for many years been too little and has often been delivered ad hoc.

Much has changed in recent decades. Beginning with the establishment of the first National Highway in the 1970s – since expanded and renamed as the National Network – Federal-State road funding arrangements have come a long way.

Most recently, the establishment of the Nation Building Program and Infrastructure Australia has significantly increased the total amount of funding available for Australia's roads and has introduced new levels of rationality, transparency and fairness in the way that those funds are distributed. These new road funding arrangements have also injected a degree of cooperation and coordination between Federal and State governments that has not been seen in the past.

Despite this progress, the contribution that the Federal government makes to total national road funding remains the least of Australia's

three tiers of government. This arrangement is simply inequitable given that the Federal government raises far more revenue than state and local governments.

If there is a glaring blind spot in Australia's road funding arrangements, it is the level and distribution of funding to local roads. Despite being where most journeys begin and end, there are many local roads across Australia that are crumbling or lack even basic safety features.

Some of our regional, rural and remote areas, which give so much to our nation's economy and provide so many recreational opportunities can only be reached by road.

Of the significant increase in Federal funding that is needed for Australia's roads, the largest injection of funds should therefore go to our local roads. That is why this Committee has recommended that fifty per cent of Federal fuel excise revenue should be hypothecated to roads and that the largest portion of this funding should be spent on local roads.

Our freeways, highways and arterial roads also play a fundamental role in the national economy but, with the notable exception of the National Network, these roads receive little in the way of direct Federal funding. That is why this Committee has recommended that a significant portion of the hypothecated Federal fuel excise revenue should also be directed to these roads.

Tragically, our roads continue to claim the lives of too many people. Every day, on average, four people die and more than 80 people are seriously injured in road crashes – a total of approximately 1,500 deaths and 30,000 serious injuries each year. While we have seen a significant decline in the national road toll in recent years, the number of serious injuries has increased.

This is despite the remarkable improvements in vehicle safety and driver behaviour, not to mention increasingly effective enforcement measures. While further advances in these areas will continue to be crucial, research tells us that most of the additional reduction in road trauma must come from improvements to the safety of the roads themselves.

The Committee is confident that the significant increase in Federal funding that it has recommended would produce a real and lasting reduction in the level of road trauma. However, for this to occur, the hypothecation principle must also apply to Federal funding for road safety.

Victoria has taken a lead in this area with arrangements between the Transport Accident Commission and VicRoads that have for several years provided a guaranteed stream of revenue for safety

upgrades on Victoria's roads. Members of the Committee were unanimous in the view that the Federal government should make a similar commitment to the funding of a safety transformation right across Australia's road network.

For this reason, perhaps the two most crucial recommendations in this report call on the Federal government to: increase Federal Black Spot funding to ten per cent of the National Network construction and maintenance budget and to dedicate this funding entirely to local roads; and to establish a national program to fund safety improvements to state roads, based on Victoria's Strategic Road Infrastructure Program (SRIP).

I am pleased to present this report on a crucial and too often overlooked area of road safety. On behalf of the Committee, I would like to thank all the organisations and individuals who contributed to the Inquiry in the form of submissions and evidence provided at public hearings and meetings.

Finally I would like to thank the members of the Road Safety Committee for their time and deliberations throughout this Inquiry. Similarly, my appreciation is extended to the Committee staff, our Executive Officer Ms Alexandra Douglas, Principal Research Officer Nathan Bunt, Research Officer Jason Boulter, and Administrative Officer Ms Christianne Castro.

**John Eren, MLA**

**Chair**

# Executive Summary

Australia's roads depend on adequate levels of funding and the way in which road funding is distributed is crucial to both economic efficiency and equity.

Under the Australian Constitution, roads are the responsibility of state and local governments. However, the Federal government also provides road funding assistance.

The level of Federal road funding has grown over time, particularly in recent years with the establishment of the Nation Building Program and Infrastructure Australia. However, the contribution that the Federal government makes to total national road funding remains the least of Australia's three tiers of government. This arrangement is inequitable given that the Federal government raises significantly greater revenue, and has significantly greater capacity to raise revenue, than state and local governments.

This situation, which is commonly referred to as 'vertical fiscal imbalance', has had an especially negative impact on the quality and safety of Australia's local roads and should be redressed as a national priority.

Vertical fiscal imbalance has had a particularly negative effect on roads in rural, regional and remote areas where many roads are literally crumbling as a result of years of inadequate funding. While local governments are responsible for managing more than 80 per cent of the entire road network by length, they have faced mounting cost pressures in recent years and a simultaneous real reduction in Federal funding.

The current road funding arrangements also undermine economic efficiency. Economic efficiency requires that any finite pool of funding – such as total Federal funding for all expenditure purposes – should be allocated towards those areas of expenditure that represent the highest priorities for society and which deliver the greatest economic and social returns. Although roads represent such an area of high priority, this is not reflected in the current level of funding for roads.

The primary source of Federal funding for local roads is the local roads grant, which is paid via state grants commissions in each of the states. This funding is untied, which means that local governments are free to spend it on services or infrastructure other than roads. It also means that local governments are not required to account for their expenditure against specific road projects.

The Committee received a significant amount of evidence on the inequitable distribution of the local roads grant amongst the states. The states' current shares of the grant have been fixed since 1991 when the grant became untied and the original basis for these shares is now unknown. The current shares of the states no longer reflect relative road funding needs, primarily because they result in under-funding of those states with higher populations.

Consequently, the Committee has recommended that there should be a redistribution of the local roads grant based on a greater weighting of state and territory populations. The Committee has also recommended that there is a need to develop a nationally consistent road classification system to improve the equity of states' shares of the local road grant into the future.

The second largest source of Federal funding for local roads is the Roads to Recovery Program. Councils are also required to match this funding with equal funding from their own revenue. The substantial increase in Federal funding that is required to address the maintenance backlog on local roads should primarily be delivered under the Roads to Recovery Program because this funding is tied, which means that councils are required to account for the funds against specific projects.

However, the current requirement that local councils match the Federal funding they receive under the Roads to Recovery Program places councils, particularly rural and regional councils, at a disadvantage since they generally have less capacity to raise the necessary revenue from their own sources. The matching requirement should therefore be abolished for councils where rate bases do not allow a matching contribution.

The substantial increase in Federal funding for roads that has been recommended by the Committee will require a reallocation of Federal government expenditure priorities. A range of stakeholders and commentators have advocated increased funding from Federal fuel excise as the most economically efficient and equitable option for providing the necessary funding boost in the foreseeable future.

The Committee agrees with this view and has recommended that 50 per cent of the annual fuel excise revenue collected by the Federal government should be hypothecated to roads. The establishment of such a guaranteed pool of Federal funding for roads would go a long way towards addressing the need that currently exists for local roads, as well as on a significant number of state arterials and highways. The Committee considers that the majority of this hypothecated revenue should be allocated to local roads under the Roads to Recovery Program and that the remainder should be allocated to state arterials, highways and freeways, as well as to improvements to the road interface with public transport.

Also, the necessary increase in funding for roads will require the generation of additional revenue from new sources. This is particularly important to ensure that the substantial increase in Federal road funding that the Committee has recommended does not result in a diminishing level of funding for other areas of Federal government expenditure such as health and education.

The Committee received evidence from a number of stakeholders who advocated the adoption of comprehensive road pricing as a means of either augmenting current government funding for roads or as a complete alternative to the current road funding arrangements, which could also enable the phasing out of fuel tax. There remain, however, significant uncertainties regarding the way in which such a scheme might be implemented and the extent to which it would actually increase the current level of road funding. Also, comprehensive road pricing has also not been adopted anywhere in the world to date. Therefore, private efficient financing such as Public Private Partnerships, as well as the prudent use of government debt, represent the most appropriate means of developing new sources of road financing in the foreseeable future.

The Committee also received evidence on the more limited form of road pricing known as congestion charging. Such schemes are aimed at reducing traffic congestion, which is recognised as having a negative impact on economic efficiency, particularly in major cities. Infrastructure Australia has recently estimated that traffic congestion could cost Australia's capital cities more than $20 billion by 2020. The Committee considers that any consideration of the feasibility or desirability of congestion charging in Australia is a Federal issue since any such scheme would need to be based on the use of nationally consistent technology. The Committee is also strongly of the view that any Federal consideration of congestion charging would need to ensure that such a scheme did not disadvantage any Australian communities or road users.

In addition to the huge impact that they have on economic efficiency, road crashes cause approximately 1,500 fatalities and 30,000 serious injuries in Australia each year. Increased Federal funding for roads could help to achieve a significant reduction in these appalling social costs of road crashes. A range of specific safety treatments can both reduce the risk of a crash on roads and the likely degree of injury when crashes occur. These treatments range from simple measures such as sealed shoulders on country roads to innovative treatments such as wire rope barriers and high technology solutions such as Intelligent Transport Systems.

However, Federal funding for such measures is currently inadequate. In Victoria, annual average funding for improvements for road infrastructure safety measures is greater than annual national funding under the Federal Black Spot Program.

Consequently, the Committee has recommended a significant increase in the level of Black Spot funding and that this funding should be dedicated to local roads, as is currently the case in Victoria. The Committee has also recommended the establishment of a new Federal program to fund safety improvements on state roads, preferably modelled on Victoria's successful Safer Roads Infrastructure Program.

The Committee is strongly of the view that hypothecation of Federal fuel excise represents the best prospect for increasing and re-orienting Federal road funding. The opportunity that hypothecation presents for the provision of more efficient, durable and safer roads – resulting in increased mobility, less vehicle damage and reduced road trauma – is not in dispute.

# Recommendations

## Chapter 3 – Assessment of the Current Road Funding Arrangements

1. **That the Minister for Roads and Ports, through the Council for Australian Governments, advocate a change in the local roads grant allocation methodology. That the local roads grant should be allocated according to a weighted average of 20 per cent for each state and territory's share of the total national local roads length and 80 per cent for its share of the national population. This change should also apply to allocations under the Roads to Recovery Program.**

2. **That the Minister for Roads and Ports, through the Council for Australian Governments, advocate to develop a nationally consistent road classification system based on nationally consistent data. The application of Intelligent Transport Systems in obtaining such necessary data should also be encouraged.**

3. **That the Minister for Roads and Ports, together with the Minister for Finance, advocate through the Council of Australian Governments changes to the local roads grant and the Roads to Recovery Program to ensure the indexation of both payments to reflect actual costs.**

4. **That the Minister for Roads and Ports, together with the Minister for Finance, through the Council of Australian Governments advocate that federal funding for the backlog of maintenance and construction on local roads be increased under the Roads to Recovery program.**

   **(a) The increase in funds should be adequate to redress the backlog of maintenance and construction, particularly in the regional and rural areas and interface councils.**

   **(b) The existing requirement that councils must match the amount of funding received under the Roads to Recovery Program should be abolished for councils where rate bases do not allow matching contributions.**

## Chapter 4 – Sources of Road Funding

**5. That the Minister for Roads and Ports, through the Council of Australian Governments, advocate that the Commonwealth hypothecate 50 per cent of fuel tax revenue to road expenditure. The additional revenue raised from fuel tax hypothecation should be allocated in the following proportions:**

- **60 per cent allocation to local roads under the Roads to Recovery program;**
- **40 per cent allocation to other roads for construction and maintenance, including improvements to the road interface with public transport.**

**The hypothecation arrangement should be reviewed after a period of five years.**

**6. That the Minister for Roads and Ports advocates through the Council of Australian Governments that Infrastructure Australia continue to develop processes and policies aimed at encouraging appropriate private sector involvement in Australia's road infrastructure through the Private Public Partnership model, including the establishment of mechanisms whereby individual legislation on a state by state basis is not required.**

**7. That the Minister for Roads and Ports establish a requirement in Victoria, and through the Council of Australian Governments advocate the establishment of a national requirement, that all new road infrastructure projects be subject to an examination of the most cost efficient method of raising finance. For each project, consideration should given to the relative value for money of possible alternatives to the use of Private Public Partnerships, including the option of full government participation through borrowings.**

## Chapter 6 – Road Safety

**8. That the Minister for Roads and Ports, through the Council of Australian Governments, advocate the allocation of state and federal funding for a series of public information campaigns on the star ratings and risk maps available from the AusRAP website.**

**9. That, in the event of a successful outcome of the trial of centre-line wire rope safety barriers on the South Gippsland Highway, the Minister for Roads and Ports**

**ensures the installation of wire rope barriers as a low cost measure for improving the safety of Victoria's roads in the future.**

10. **That the Minister for Roads and Ports, through the Council of Australian Governments, advocate that funding for all new road construction under the federal-state road funding arrangements be made conditional on the integration of all speed limits and GPS settings into applicable electronic maps.**

11. **That the Minister for Roads and Ports, through the Council of Australian Governments, advocate the establishment of a federal-state road funding program dedicated to ensuring that digital maps are kept up to date.**

12. **That the Minister for Roads and Ports, through the Council of Australian Governments, advocate an increase in the annual level of Federal Black Spot funding to an amount representing ten per cent of the annual value of federal construction and maintenance expenditure on the National Network. The Federal Black Spot funding conditions should also require that states dedicate all such funding to local roads.**

13. **That the Minister for Roads and Ports, through the Council of Australian Governments, advocate the establishment of a federal program to fund safety improvements to state roads modelled on Victoria's Strategic Road Infrastructure Program (SRIP).**

14. **That the Minister for Transport advocate for increased federal-state funding for rail infrastructure at the Council of Australian Governments, with the aim of significantly boosting rail's share of the land freight task, particularly the non-bulk freight carriage task on inter-capital routes.**

15. **That the Minister for Transport, through the Council of Australian Governments, seek a significant increase in federal funding for new public transport infrastructure in Australia's metropolitan and provincial cities.**

# Glossary

## Acronyms

| | |
|---|---|
| AAA | Australian Automobile Association |
| ACRS | Australasian College of Road Safety |
| ALGA | Australian Local Government Association |
| ANCAP | Australasian New Car Assessment Program |
| ARA | Australasian Railway Association |
| ATA | Australian Trucking Association |
| ATC | Australian Transport Council |
| BIC | Bus Industry Confederation |
| BITRE | Bureau of Infrastructure, Transport and Regional Economics |
| BTE | Bureau of Transport Economics |
| CEDA | The Committee for Economic Development of Australia |
| CGC | Commonwealth Grants Commission |
| COAG | Council of Australian Governments |
| CPI | Consumer Price Index |
| CRRP | COAG's Road Reform Plan |
| DITRDLG | Department of Infrastructure, Transport, Regional Development and Local Government |
| GST | Goods and Services Tax |
| IA | Infrastructure Australia |
| IAP | Intelligent Access Program |
| IPA | Infrastructure Partnerships Australia |
| ITS | Intelligent Transport Systems |
| IVU | In-Vehicle Unit |

| | |
|---|---|
| MAV | Municipal Association of Victoria |
| MRRT | Minerals Resource Rent Tax |
| NRMA | National Roads and Motorists' Association Limited |
| NRSC | National Road Safety Council |
| OECD | Organisation for Economic Co-Operation and Development |
| PATREC | Planning and Transport Research Centre |
| PPP | Public Private Partnership |
| QLGGC | Queensland Local Government Grants Commission |
| RACV | The Royal Automobile Club of Victoria |
| RSPT | Resource Super Profits Tax |
| RTA | Roads and Traffic Authority, New South Wales |
| SALGCC | South Australian Local Government Grants Commission |
| SEATS | South East Australian Transport Strategy |
| SRIP | Safer Roads Infrastructure Program |
| TAC | Transport Accident Commission |
| VGC | Victoria Grants Commission |

## Terminology

**Allocative Efficiency**

A form of economic efficiency that refers to the allocation of scarce resources in accordance with their most valued use.

**Arterial Road**

A road which functions to serve through traffic but which generally also allows a degree of access to and from properties beside the road.

**AusLink**

Established by the Federal Government in 2005, AusLink was described as Australia's first national land transport plan. It included:

- a defined National Network of important road and rail infrastructure links and their intermodal connections;

- the National Land Transport Plan which outlined the Government's approach to improving and integrating the National Network, and its planned investments; and

- a single funding regime, under a new AusLink programme, for the National Network.

The AusLink National Network replaced the former National Highway System, Roads of National Importance and the interstate rail network.

**AusRAP**

The Australian Road Assessment Program (AusRAP) is part of a worldwide road assessment program established by the I-RAP company. AusRAP publishes risk assessment maps and safety star ratings for roads within the National Network.

**Black Spot**

A road location with a proven history of crashes. Under the Federal Black Spot Program, a black spot is eligible for funding if it is an individual site with a history of at least three casualty crashes over a five-year period. A length of road is eligible if it has an average of 0.2 casualty crashes per kilometre per annum over five years; or the road length to be treated is among the top 10% of sites with a demonstrated higher crash rate than other roads in a region.

**Building Australia Fund**

A fund established by the Commonwealth Government in the 2008-09 Federal Budget, with an initial amount of $20 billion, as a new source of funding for economic infrastructure, including roads. Commonwealth Government funding allocations under the Building Australia Fund are guided by a national audit and infrastructure priority list developed by Infrastructure Australia.

**Congestion Charging**

A form of road pricing that is more limited in scope than comprehensive road pricing and involves charging road users for travel on specific roads or sections of a road network, particularly during peak periods, with the primary aim of reducing road congestion.

**Comprehensive Road Pricing**

A form or road pricing that involves charging road users for travel on all roads within a given road network, such as a particular city, region or nation.

**Consolidated Revenue**

The total revenue received by a government from all sources, including taxes and charges, and which is paid into a single fund from which all government expenditure is financed.

**Economic Efficiency**

The use of resources so as to maximise the production of goods and services. See also allocative efficiency.

**Equity**

In the context of public policy, equity generally refers to the idea of fairness or equality in the way that the costs and benefits of goods and services are distributed within society.

**Freeway**

A road which primarily functions to serve through traffic and which does not permit direct access to properties beside the road.

**Hypothecation**

In the context of government fiscal policy, hypothecation refers to a pledge or guarantee that some or all of the revenue raised from a particular tax or charge (such as fuel tax) will be directed towards a particular area of expenditure (such as roads).

**Local Road**

Any road for which the primary function is local access to and from adjoining properties rather than the movement of through traffic. Also known as a ‘local street’. Local roads are generally the responsibility of local government.

**Nation Building Program**

The current Federal land transport funding program, which replaced the AusLink program from the beginning of the 2008-09 financial year. Its components include: funding for construction and maintenance on the National Land Transport Network; the Roads to Recovery Program; the Black Spot Program; the Heavy Vehicle Program; Off-Network projects; and the Boom Gates for Rail Crossings Program.

**National Land Transport Network**

The National Land Transport Network, also known as the National Network, is a single integrated network of land transport linkages of strategic national importance, which is funded by Federal, State and Territory Governments. The National Network is based on national and inter-regional transport corridors including connections through urban

areas, links to ports and airports, rail, road and intermodal connections that together are of critical importance to national and regional economic growth development and connectivity.

**National Network**

See National Land Transport Network.

**Vertical Fiscal Imbalance**

The situation in a federal system of government where the revenue raising capacity of different levels of government does not match their expenditure responsibilities.

**Road Pricing**

Road pricing is an umbrella term that refers to any of a number of schemes that operate by placing a direct price on the use of a road or roads. Road pricing can be subdivided into comprehensive road pricing and congestion charging.

**Spillover Costs**

Also known as ‘external costs’, ‘externalities’ or ‘social costs’, these are costs caused by individuals — such as congestion, road wear, pollution and road crashes — but which are paid by society rather than by the individual(s) who caused them.

Chapter

1

# Introduction

## Purpose and Context of the Inquiry

Australia's road funding arrangements play a critical role in determining the extent and quality of the nation's roads and in the realisation of fundamental economic and social goals.

Roads are crucial to economic development and prosperity and road funding delivers comparatively high returns to the economic welfare of a community. Ensuring adequate levels of road funding for construction, maintenance and renewal is therefore critical.

While Australia's extensive road network provides a high level of mobility and safety by world standards, there is significant scope for improvement. Enhancing Australia's road funding arrangements has the potential to better connect communities and industries, reduce road congestion and improve road safety.

Historically, the level of federal funding, or the extent of involvement in road planning, does not reflect the national significance of Australia's roads. This situation has improved in recent years, with the establishment of AusLink, and its successor in December 2008, the Nation Building Program. The establishment of Infrastructure Australia, also in 2008, has provided both an important additional source of federal funding for road infrastructure and a platform for the prioritisation of nationally significant road projects.

These developments have been described as part of a new era of cooperative federalism, which is underpinned by a new Intergovernmental Agreement that covers the financial relations between the federal government and the states and territories.

Despite these developments, a variety of stakeholders and commentators have continued to call for reform in a number of areas of Australia's road funding arrangements. Foremost among these is the call for a greater funding contribution from the Commonwealth Government across the entire road network. State and local governments continue to bear the greatest share of the road funding burden despite having significantly less funding capacity than the Commonwealth Government. This situation, known as vertical fiscal imbalance, has been regarded as a

particular problem by Australia's road funding managers for many years.

Most of the recent reforms in the administration of federal funding, and the associated increase in funding levels, have been limited to funding for state and territory managed roads. Furthermore, the vast majority of this funding is directed towards only a minority of state and territory managed roads – those that fall within the National Land Transport Network.

Mr Brendan Lyon, Executive Director, Infrastructure Partnerships Australia, at a public hearing in Melbourne on 12 April 2010, stated that Australia will need to increase its transport infrastructure funding to more than $62.5 billion per annum by 2050.[1] By way of comparison, federal government funding on infrastructure for 2009-10 was approximately $5.1 billion.[2] Both the Australasian College of Road Safety, in its submission to the Inquiry, and Mr Mike Harris, Chief Executive, Australian Automobile Association (AAA), at a public hearing in Canberra, 17 March 2010, stated that Australia would need to spend an additional $24 billion in coming years to raise the safety of Australia's roads to an acceptable level.[3]

The federal road funding shortfall is most acute for roads that are managed, and primarily funded, by local government. The Committee received evidence that this is particularly the case in rural and regional areas.[4] While local government is responsible for approximately 82 per cent of Australia's roads (measured in route kilometres) councils have the smallest revenue base of Australia's three tiers of government.[5] Also, local government receives significantly less federal road funding than the states.[6]

The vertical fiscal imbalance inherent in Australia's road funding arrangements represents a source of inequity between Australia's three levels of government. The current road funding arrangements impose a relatively greater burden on state and local government expenditure, compared to the federal government, and reduce their expenditure capacity in other areas of responsibility. Australia's current funding arrangements also have significant implications for social equity because they have a direct impact on relative levels of mobility and safety.

Advocates of reform to Australia's road funding arrangements have suggested a number of paradigm changes to the current arrangements, which are aimed primarily at addressing the road funding shortfalls caused by the problem of vertical fiscal imbalance. These include the options of:

- hypothecating (allocating tax revenue) a portion of federal fuel excise revenue to road expenditure, that is, guaranteeing that a certain portion of this revenue is spent on roads;

- introducing a tax base sharing arrangement between the federal government and the states and territories; and

- a significant increase in private sector financing, including through an expanded use of Public Private Partnership arrangements.

A fourth change to Australia's road funding arrangements advocated in recent years is that of congestion charging and, in the longer term, of comprehensive pricing of the road network, that is, charging drivers directly for travel on roads. Congestion charging is aimed at mitigating traffic congestion, which currently represents a growing challenge for Australia's cities, primarily due to historic levels of population growth and a rapidly increasing volume of freight on Australia's roads. Moreover, there is growing recognition that congestion cannot be fully addressed simply by increased road funding and the construction of more roads.[7] Congestion represents a key challenge for the economic efficiency of Australia's major cities and regional centres. Congestion also represents a challenge for social equity since it can have a particularly negative impact on liveability for Australians in major cities.

### Conduct of the Inquiry

On 1 March 2007, the Legislative Assembly referred the Terms of Reference for the Inquiry into Federal-State road funding arrangements to the Road Safety Committee.

Commencement of this Inquiry was delayed by more than two years due to the precedence of other inquiries.

The Inquiry commenced with notices placed in major metropolitan and regional newspapers on 12 December 2009, advising the Terms of Reference and inviting submissions. Additionally, written invitations for submissions were sent to key stakeholders across Australia including to all federal, state and territory transport departments and grants commissions.

## Submissions and Hearings

A total of 12 submissions were received from a range of stakeholders, including State Government departments, State Grants Commissions and organisations representing local government and road users.

See Appendix A for a list of submissions received by the Committee.

Further evidence was sought through public hearings and briefings, which were held between 12 February 2010 and 12 April 2010 in Melbourne, Canberra, Sydney and Perth.

Further requests were made to each state and federal transport department and grants commissions, to no effect.

See Appendix B for a list of public hearings, briefings and witnesses.

## Impediments to the Inquiry

The Committee sought a submission or comment from the Federal Department of Infrastructure, Transport, Regional Development and Local Government (DITRDLG). Despite being the Department with responsibility for determining federal funding priorities for Australia's roads, the Department declined to make a submission or meet with the Committee. Infrastructure Australia and the Commonwealth Grants Commission also declined to make a submission or provide evidence to the Committee. Several states, Tasmania and South Australia, were unable to meet with the Committee due to the timing of elections in their jurisdictions.

Despite limited information, the Committee determined to continue with its investigations with the aim of improving the current arrangements.

# Interpreting the Terms of Reference

## Federal-State Road Funding Arrangements

The Committee decided at an early stage that the terms of reference for the Inquiry required the adoption of a national and holistic consideration of Australia's road funding arrangements, rather than a more narrow focus on individual states and territories. Despite the adoption of this approach, sections of the final report inevitably contain a relatively greater focus on Victoria. This is primarily due to the Committee's greater familiarity with the specific road funding arrangements and examples in this State, and evidence being forthcoming.

While the terms of reference for this Inquiry requested that the Committee consider Australia's federal–state road funding arrangements, the Committee determined that consideration should also be given to local government road funding arrangements. There are a number of reasons for this approach.

First, local government is responsible for managing approximately 82 per cent of the total road length in Australia, see Table 1.1 on page 20. Second, a significant portion of federal road funding is

provided to local councils, albeit less than the proportion that is provided to state governments, for expenditure on state roads. Third, the evidence provided to the Committee clearly indicates that local roads currently represent the area of greatest need.[8] Finally, there is a sense in which federal road funding to local governments may be seen as funding to the states. An example of this reality is the arrangements under which the Commonwealth Grants Commission allocates the untied financial assistance grants for local roads to state grants commissions for distribution amongst councils.

## Economic Efficiency and Equity

### Introduction

Part two of the Terms of Reference requests the Committee to assess the economic efficiency and equity of Australia's current road funding arrangements.

While public policy decisions often require tradeoffs between the goals of economic efficiency and equity, investment in infrastructure that is well targeted, planned and executed can deliver economic efficiency while promoting equity.

Questions of economic efficiency and equity are the subject of a branch of economics known as welfare economics.[9] Welfare economics analyses the conditions under which economic policies may be described as leading to improvements in social welfare.[10] *The Economist* defines welfare economics as:

> Economics with a heart. The study of how different forms of economic activity and different methods of allocating scarce resources affect the well-being of different individuals or countries. Welfare economics focuses on questions about equity as well as efficiency.[11]

The goals of economic efficiency and equity are central to the vision for the future of Australian transport that has been articulated by the Australian Transport Council (ATC). The ATC is the national body for the co-ordination and integration of all surface transport and road policy issues. The ATC's vision states that:

> … Australia requires a safe, secure, efficient, reliable and integrated national transport system that supports and enhances our nation's economic development and social and environmental well-being.[12]

Economic efficiency and equity also represent two of the key policy objectives to which the ATC has committed as part of this vision:

- Economic. To promote the efficient movement of people and goods in order to support sustainable economic development and prosperity.

- Social. To promote social inclusion by connecting remote and disadvantaged communities and increasing accessibility to the transport network for all Australians.[13]

Given the central role that roads play within the national transport system, the economic efficiency and equity of Australia's road funding arrangements are crucial elements of the above policy objectives and of the ATC's vision for the future of Australian transport.

The goal of an economically efficient and equitable transport system is also increasingly recognised by Australia's states and territories, along with an increased emphasis on an integrated and sustainable approach to transport planning and funding, which aims at harmonising those goals. For example, section six of Victoria's new transport statute – the *Transport Integration Act 2010*, which was assented to in March 2010, contains the following vision statement:

> The Parliament recognises the aspirations of Victorians for an integrated and sustainable transport system that contributes to an inclusive, prosperous and environmentally responsible State.[14]

The Act places a particular emphasis on the development of a transport system (that is, road, rail and all other modes of transport) that integrates transport with land use by:

> (a) maximising access to residences, employment, markets, services and recreation;
>
> (b) planning and developing the transport system more effectively;
>
> (c) reducing the need for private motor vehicle transport and the extent of travel;
>
> (d) facilitating better access to, and greater mobility within, local communities.[15]

Notably, the Act also establishes VicRoads and the Director of Public Transport as the two agencies with overall responsibility for the transport system.[16]

Sections 8 to 13 of Victoria's *Transport Integration Act 2010* articulate the following transport system objectives in support of the vision statement:

- social and economic inclusion;

- economic prosperity;
- environmental sustainability;
- integration of transport and land use;
- efficiency, coordination and reliability; and
- safety and health and well-being.[17]

The Australian Capital Territory Government has also established an *Integrated Transport Framework*, based on the relationships between the components of the transport system: roads, parking, public transport, cycling, walking and supporting infrastructure. The Framework recognises that:

> It is not possible to tackle transport issues effectively while considering each element in isolation.[18]

The Framework includes an Action Plan aimed at:

- providing net benefits for the ACT economy by improving the efficiency of the whole transport system;
- addressing traffic congestion;
- improving social outcomes for the ACT community;
- minimising the level of transport emissions; and
- providing the ACT community with better transport options.[19]

## Economic Efficiency

Economists identify three categories of economic efficiency: allocative, productive and dynamic. Allocative efficiency refers to the allocation of scarce resources in accordance with their most valued use. Productive efficiency refers to the production of goods and services at minimum cost. Dynamic efficiency refers to the provision of better goods and services as a result of technological innovation.[20] Examples of dynamic efficiency include road safety advances and improved methods of road tolling, both through Intelligent Transport Systems.

Allocative efficiency is of particular relevance to the current Inquiry. It describes a situation in which it is not possible to increase the overall welfare of society by changing the way in which resources are allocated.[21] In other words, a change in the allocation of resources would either reduce welfare or leave it unchanged. It is important to note that the concept of allocative efficiency assumes a

given level of resources.[22] In the Committee's view, there are two aspects of the current road funding arrangements that can be assessed in terms of allocative efficiency: the level of government road funding; and the allocation of government road funding.

**The Level of Government Funding**

The level of government funding for roads may also be seen as the proportion of the total pool of government funding that is allocated to road expenditure. Since there is a finite pool of government funding available for all expenditure purposes at any point in time, assessing the allocative efficiency of the level of government funding for roads essentially asks the question whether the share of total funding allocated to roads is that which maximises social welfare. It follows that allocative efficiency can be improved if it is possible to increase the level of road funding such that overall social welfare is maintained or even increased.

The Committee is mindful that assessments of overall social welfare are to some extent subjective since they depend on the relative value that is given to different expenditure priorities, for example, health, education, the environment and roads. However, the Committee also notes that there is broad agreement within society that relatively greater weight should be given to certain indices of social welfare. The levels of safety and mobility provided by the road network, particularly as measured by motor vehicle crash statistics and travel times – including commuter travel times on roads subject to congestion – are among those indices of social welfare that are rated most highly by society.

Further, road infrastructure spending has significant multiplier effects for an economy. In economics, the multiplier effect refers to the process by which a change in spending produces an even larger change in the flow of money to the factors of production, which include land, labour, capital and enterprise.[23] Economists contend that the multiplier effect is strongest for spending on physical infrastructure.[24] It therefore follows that increased spending on road infrastructure has greater potential to improve allocative efficiency than increased expenditure in other areas. That is, increased spending on roads can produce greater gains in economic and social welfare than increased spending in some other areas of the economy.

In summary, increasing the level of government road funding can significantly increase economic efficiency, both because it contributes to measures of economic and social welfare that are valued highly by society and because of its significant multiplier effects. It also follows that road funding contributes most to economic efficiency when it is targeted at those areas of the road network that are most in need. One option for increasing the level of federal road funding from existing funds – which would therefore

result in a decrease in funding for other areas of public expenditure – would be to hypothecate a portion of the federal fuel excise to road expenditure.

However, there is also a strong case for the establishment of new funding sources for road expenditure, both because of the relative economic efficiency of public spending on roads and because it offers a means of increasing roads expenditure while minimising the impact on other areas of expenditure. Some potential sources of new road funding considered by the Committee in this report include: the possible introduction of a direct price on road usage, such as congestion charging or comprehensive road pricing (Chapter Five); and increased levels of private investment, including Public Private Partnerships (PPPs). The Committee also notes that the sourcing of additional road funding from future federal government surpluses would obviate the need for any reduction in expenditure in other areas of the economy.

The relative share of the road funding burden that is borne by each of Australia's three levels of government also has important implications for allocative efficiency. The existence of significant vertical fiscal imbalance in Australia's system of government was identified by several stakeholders as a major challenge for Australia's road funding arrangements.[25] As noted earlier, vertical fiscal imbalance refers to the situation in a federal system of government where the revenue raising capacity of different levels of government does not equal their expenditure responsibilities.[26]

In terms of Australia's road funding arrangements, vertical fiscal imbalance is epitomised by the fact that state and local governments contribute approximately two-thirds of road funding, despite having significantly less revenue raising capacity than the Commonwealth Government. The Committee considers that this explains the significant shortfall in the current level of road funding, particularly for local roads.

### The Distribution of Government Funding

A second aspect of the current road funding arrangements that has a bearing on their allocative efficiency, concerns the way in which the available pool of road funding is distributed, including between levels of government, between states, between regional and metropolitan areas and between types of roads such as freeways, highways, arterials and local roads.

## Social Costs

Another key principle of economic efficiency is Marginal Social Cost Pricing, which refers to the idea that people should generally pay for the marginal (or additional) social costs caused by their actions. These include external costs – also known as 'spillover costs',

which in relation to motor vehicle transport includes crashes, congestion, road wear and pollution.[27]

The negative impact on economic efficiency of increased traffic congestion has received particular attention in recent years. In the first of its *State of Australian Cities* reports, Infrastructure Australia's Major Cities Unit has described congestion as 'the bane of urban dwellers', and stated that if it is not addressed it will have increasingly negative impacts on lifestyle and the economy. The report estimated that the avoidable cost of congestion for Australia's capital cities was approximately $9.4 billion in 2005 and is projected to increase to $20.4 billion by 2020.[28] The report stated that:

> Congestion not only lengthens working hours but also tilts the work/family balance contrary to the aspirations of the majority of Australians. In addition, congestion leads to productivity declines.[29]

The Commonwealth Treasury has recently forecast that Australia's population will increase from 22 million to 35.9 million by 2050.[30] The Victorian Government has predicted that Victoria's population will grow to nearly 7.4 million by 2036, an increase of 42 per cent from 2006.[31]

The freight task in Australia's capital cities is expected to grow by 70 per cent between 2003 and 2020 and Infrastructure Australia has stated that:

> … as trucks compete with other traffic in ever more congested roads, productivity will decline and costs to business increase.[32]

The Victorian Competition and Efficiency Commission, in its 2007 report, *Making the Right Choices: Options for Managing Transport Congestion*, concluded that:

- Melbourne's major roads were nearing capacity;
- traffic was slowing down on key arterial roads and freeways, causing flow-on delays for trams and trains;
- peak hours were becoming both longer and busier, with more cars on the roads between 6-9am and 4-7pm; and
- driving at peak hour on the Monash, West Gate and Tullamarine freeways took three times longer than at other times.[33]

Infrastructure Australia's report also referred to the connection between congestion and declining urban air quality, noting that

transport emissions are one of the largest sources of emissions growth in Australia, with direct $CO_2$-equivalent emissions projected to increase 22.6 per cent between 2007 and 2020.[34]

The report noted the connection between declining air quality from congestion and a number of health problems resulting with:

> … respiratory conditions and exposure to urban air pollution now accounting for 2.3 per cent of all deaths.[35]

The United States-based Health Effects Institute has also recently published an international study which found that traffic pollution within a 500 metre radius of a major arterial is likely to exacerbate asthma in children, trigger new asthma cases across all ages, harm lung function in adults, and could contribute to cardiovascular illness and death.[36]

The Committee is mindful that such broad ranging impacts all have the potential to significantly harm future economic and social welfare.

The possibility of addressing congestion is one of the major benefits cited by the advocates of road pricing, particularly by the advocates of congestion charging schemes. This issue is the subject of Chapter Five. The advocates of road pricing also claim that it can promote equity because it has the capacity to attribute some of the costs of road use, such as congestion and road wear, to the road users who actually generate these costs.

The other social cost of motor vehicle transport that is discussed in detail in this report (see Chapter Six) is that of road vehicle crashes. The Committee considers that any contribution the road funding arrangements can make to road safety will also significantly improve the economic and social welfare delivered by those arrangements. Road safety is therefore an important measure of the economic efficiency of the current funding arrangements, given the immense difference that road safety improvements can make to the lives of drivers, passengers and pedestrians.

## Equity

Equity, in terms of public policy, most commonly refers to the idea of fairness or equality in the way that the costs and benefits of goods and services are distributed within society. Policies aimed at improving equity – or at preventing or mitigating inequity – typically address issues that arise from the unequal distribution of income and other benefits or opportunities, such as access to services, between different groups and geographic areas.[37] Equity in this

sense is most relevant to the current Inquiry in terms of the levels of mobility and safety that are delivered by the road network.

Mobility is determined both by the degree of access to the road network and the relative ease with which road users are able to use that network and reach their destination.

The contribution that mobility makes to equity was emphasised by Mr Tony Canavan, Coordinator-General, Nation Building and Jobs Plan, Victorian Department of Premier and Cabinet, in a presentation to the Victorian Chapter of the Railway Technical Society of Australasia. Mr Canavan referred to the links between economic efficiency, equity and a land transport system that maximises access to economic opportunity and jobs. He stated that transport accessibility is of particular importance for cities and regions – such as Melbourne and its surrounding regional centres – which are increasingly shifting towards service-based economies.[38] Mr Canavan noted that:

> There is a direct link between accessibility and productivity in the services economy. And in Melbourne, the areas with poor accessibility are our most disadvantaged. If we take steps to improve accessibility in an area – we create an environment where new economy jobs can be created – and we also help address social inequities in our city. If we want our city to provide equity of opportunity to the jobs of tomorrow, we must also improve accessibility and connectedness right across the city.[39]

Mr Canavan stated that, in the absence of an accessible transport system, there is a danger that large cities such as Melbourne may develop a 'two-tone urban form' in which 'high value knowledge-based jobs' gravitate to a central core while the suburban economy remains both highly reliant on consumption and highly vulnerable to global economic trends such as the 'off shoring' of jobs.[40]

The Committee is mindful of the important role that a comprehensive and accessible road network has to play in delivering social equity, not only for capital cities such as Melbourne but also for regional and remote areas.

Mr Canavan also identified the provision of 'mass transit' options, such as rail and bus networks, as the basis of a transport system that can provide people with access to jobs and economic opportunity. Mr Canavan stated that, in the case of Melbourne and Victoria:

> … we need those mass transit solutions to connect all Melbourne's suburbs and Victoria's key regional cities … That way, we provide equality of opportunity to our people, but we also draw on a bigger labour market.[41]

Mr Canavan stated that as Melbourne continues to grow it will become less sustainable – both in terms of economic efficiency and equity – for private motor vehicles to meet the commuting needs of the workforce and that this task should increasingly be delivered by public transport.[42] The integrated approach to road and rail funding that has been established under the Nation Building Program, and the establishment of Infrastructure Australia, are discussed in Chapter Two. Infrastructure Australia has also provided the foundations for a new level of federal government involvement in, and funding for, public transport under the Major Cities Program which is also discussed in Chapter Two.

Another way in which equity is considered by the Committee concerns the relative proportion of federal funding that is received by each of the states and territories (see Chapter Two). However, the Committee decided at an early stage of the Inquiry that the terms of reference called for the adoption of a national perspective which places the national interest above considerations of strict equality in terms of federal funding to the states. The Committee is mindful that this approach is consistent with both the project specific approach to road funding and integrated approach to road and rail funding, both of which have recently been established under the Nation Building Program. For example, while Victoria's current share of road funding under the Nation Building Program is lower than that of some states (see Table 2.3 on page 37), its combined share of total federal road and rail funding is much higher, at 22 per cent.[43] In short, the Committee is concerned more with the capacity of Australia's road funding arrangements to promote social equity than with strict federal funding equity between the states.

The Committee considers that vertical fiscal imbalance has a significant impact on the equity of Australia's road funding arrangements as it is inequitable that the Commonwealth Government, which has the greatest capacity to fund the road network, contributes less than state or local governments nationally. While this inequity in the funding responsibilities of Australia's three tiers of government is not unique to roads, its affect on the extent and quality of the road network are considerable. Moreover, the inequity in the relative road funding burden of Australia's three tiers of government impacts upon the capacity of state and local governments to meet other various funding responsibilities. The Committee received evidence that this inequity is particularly acute for local government at the current time, which faces increasing cost pressures. This evidence is discussed in detail in Chapter Three.

**Intergenerational Equity**

The principle of intergenerational equity also has important implications for Australia's current and future road funding arrangements. Intergenerational equity refers to the idea that development should meet the needs of the current generation

without compromising the capacity of future generations to meet their own needs.[44]

Intergenerational equity is a key component of sustainable development, which the Bureau of Transport and Regional Economics, in a 2003 paper, described as:

> The emergence of sustainable development principles since the late 1980s has emphasised the integration of economic, social and environmental values (the so–called triple bottom–line) into national and regional level policy making decisions. Sustainable development is regarded as a unifying framework to promote durable social and environmental outcomes and inter–generational equity …[45]

In 2009 the International Transport Forum also noted that:

> … all dimensions of sustainability – environmental, economic and social – are impacted strongly by transport activity.[46]

The federal government's 2010 Intergenerational Report, *Australia to 2050: Future Challenges*, noted the importance of nation building infrastructure, together with improvements to the skills base, as having a key role to play in ensuring intergenerational equity, particularly by offsetting the predicted pressures caused by the ageing of the population.[47] The report stated that:

> Decisions taken in the near term will impact on the wellbeing of future generations. Productivity-enhancing reforms, particularly through nation building infrastructure and improving the skills base, will grow the economy, improve living standards, and partly offset the fiscal pressures of ageing. With an ageing population, productivity growth is the key driver of future growth prospects.[48]

Productivity and sustainability are therefore important measures of intergenerational equity.

The Committee strongly supports the view that the intergenerational equity of Australia's road funding arrangements will be determined by the extent to which they enhance both productivity and sustainability.

## Road Safety

Road safety has a vital impact on both the economic efficiency and equity of the road system and is therefore a crucial determinant of the economic efficiency and equity of Australia's road funding arrangements.

Road design, including the incorporation of various safety treatments, is an important influence on the prevalence of road crashes and on where they occur. Australia's road funding arrangements, particularly funding levels and priorities, are therefore of direct relevance to road safety.

In addition to their often profound personal costs, road crashes impose significant economic costs on individuals and society, thereby undermining economic efficiency.

As discussed in Chapter Six, loss of life and serious injury continues to occur at unacceptably high rates on Australia's roads. Some parts of the road network are also significantly less safe than others. For example, as is also discussed in Chapter Six, AusRAP has developed a system that rates the varying risk of a crash on different parts of the road network. Accordingly, road funding arrangements that enhance road safety, both overall and in high-risk areas, make an important contribution to social equity.

In addition to the economic and social objectives noted above, the Australian Transport Council's vision for the future of Australia's transport system is also underpinned by the following policy objective:

- Safety. To provide a safe transport system that meets Australia's mobility, social and economic objectives with maximum safety for its user.[49]

Victoria's *Transport Integration Act 2010,* also identifies safety as an objective. Section 13 states that the transport system 'should be safe and support health and well-being' and should 'continually improve' its safety performance, including through the provision of safe transport infrastructure.[50]

The importance of road design to road safety is recognised both nationally and internationally. For example, the *National Road Safety Action Plan 2009 and 2010*, lists safer roads and roadsides as one of four broad areas to target.[51] Victoria's *Arrive Alive* strategy identifies roads, in combination with driver behaviour and vehicle design, as one of the three key components of the Safe System approach.[52]

The role of Australia's road funding arrangements in promoting road safety is discussed in Chapter Six.

## History of Road Funding Arrangements

Prior to Australian Federation in 1901, road construction was primarily the responsibility of local government, with State governments limited to the provision of financial support.[53]

While the Australian Constitution essentially preserved the responsibility of state and local governments for roads, it also enabled the Commonwealth to develop a significant role in relation to road funding.[54]

Federal funding of roads commenced in the 1920s, a decade which saw: the first allocation of road funding to the states; the first specific purpose grant for road construction to the states; and legislation to develop a national roads program.[55]

During the 1920s each of the state governments also established central road authorities to take over responsibility for major roads from local governments.[56]

When it was established in 1933, the Commonwealth Grants Commission took on the role of assessing claims by the states for financial assistance, known as special grants, under section 96 of the Constitution. Special grants were provided at various times to those states which were financially weaker: Queensland, Western Australia, South Australia, Tasmania and the Northern Territory.[57]

In 1937 the Commonwealth introduced legislation which established the level of federal road funding to the states over a ten year period and which was related to tax on petrol as well as customs and excise duties.[58]

Commonwealth road grants, including grants for minor rural roads, increased significantly in the following decades.[59]

Following the introduction of uniform income taxation in 1942, the states no longer had the capacity to raise sufficient revenue to meet their expenditure requirements. From this time, the Commonwealth established the practice of making large payments to the states each year.[60]

Until 1976, general revenue assistance to each state was determined principally by a formula, which was subject to variation through federal-state negotiations. General revenue sharing arrangements were introduced in 1976, under which the total amount of assistance for each state was decided by the Premiers' Conference and allocated among the states using per capita relativities agreed by the Conference.[61]

This is the system that essentially remains in place today, although there have been various changes in the details, particularly in the

methods used to decide the amount of assistance.[62] In 1974, the Commonwealth assumed funding responsibility for the maintenance of a network of roads defined as the National Highway, which comprised the main links between state and territory capital cities, as well as the Brisbane to Cairns and Hobart to Burnie links.[63]

The Commonwealth gained further control over road investment decisions in the 1980s with the passage of legislation which enabled it to generate standards for National Highways and to fund road construction.[64]

At a series of meetings in 1990 and 1991 the Commonwealth and State Governments agreed that the Commonwealth would assume full responsibility for funding National Highways, while responsibility for all other roads (essentially arterial and local roads) would remain with state and local governments.[65] The Commonwealth also agreed to extend the National Highway to include the Melbourne-Brisbane and Sydney-Adelaide interstate highways, as well as the urban road links through Sydney, Melbourne, Brisbane, Adelaide and Perth which connected to the national highway.[66]

In 2004, the Commonwealth Government established the AusLink program which pooled all funding for road and rail and redefined the national highway system and interstate railways as a single land transport network, named the AusLink Network.[67] According to the AusLink White Paper, AusLink was designed to achieve improved national land transport planning, funding and investment decision making.[68]

The Nation Building Program, established in 2008, has retained the approach established under AusLink of defining and funding road and rail as part of an integrated land transport network. Under the Nation Building Program, the former AusLink Network (the roads component of which was previously referred to as the National Highway) was renamed the National Network. The federal government is responsible for road maintenance funding on the National Network and funds construction on a project-specific basis under individual five year agreements with the states and territories. These arrangements are discussed in detail in Chapter Two.

The establishment of Infrastructure Australia and the Building Australia Fund in 2008 represents a significant development in Australia's road funding arrangements. Infrastructure Australia's first task was the completion of a national audit of infrastructure investment needs, including roads and the creation of an infrastructure priority list for future investment. The Building Australia Fund was established, with an initial amount of $20 billion in the 2008-09 Commonwealth Budget, as a new source of funding for economic infrastructure, including roads.[69]

## Australia's Road Network

Australia has more than 819,000 kms of roads, which are owned and managed by state/territory governments and by local councils.

There are two basic classification systems for roads:

- an administrative classification – used to manage the funding and administrative responsibilities for each road; and
- a functional classification – used to define the traffic function of each road.[70]

Ownership or management of a road does not always indicate its traffic function.[71]

## Administrative Classification

Federal administrative road classifications are determined by the Nation Building Program, which forms the basis for the distribution of federal road funding. These classifications include the National Land Transport Network (the National Network) and off-network roads.[72] The National Network comprises:

> … road and rail corridors and intermodal connections linking state and territory capital cities, state capital cities and major centres of commercial activity, and corridors linking two or more major centres of commercial activity.[73]

The National Network includes a network of 22,500 km of roads around the nation.[74] Off-network roads are roads outside of the National Network, including local roads.[75]

The Commonwealth Government does not own or manage any part of Australia's road network.[76] However, the federal government provides funding for state and local roads under a number of programs as outlined in Chapter Two. As also discussed in Chapter Two, by far the majority of this funding is for roads classified as part of the National Network. The lengths and relative proportions of the National Network for each of the states and territories can be seen in Table 1.2 on page 22.

At state level – with the exception of privately operated roads – Australia's roads can be administratively classified as either State Roads or Municipal Roads. State Roads are the responsibility of state and territory Governments. Municipal Roads are the responsibility of local councils. State roads include roads designated as part of the National Network.[77]

## Functional Classification

Although there are variations in the terminology used by each of the states and territories, Australia's road network can essentially be divided according to the following three functional categories currently used by VicRoads. These are:

- Freeway – a road which primarily functions to serve through traffic and where direct access to properties beside the road is not permitted;

- Arterial Road – a road which also functions to serve through traffic but which generally allows a degree of access to and from properties beside the road;

- Local Street – any road for which the primary function is local access to and from adjoining properties rather than the movement of through traffic. Although the term Local Road is often used to refer to this type of road, that term is better understood as a purely administrative classification which has the same meaning as Municipal Road. Not all Municipal Roads are local roads.[78]

## State Roads and Council Roads

Nationally, state and territory governments are responsible for managing approximately 18 per cent of the nation's entire road network. The remaining 82 per cent is managed by local government. However, as shown in Table 1.1, these proportions vary significantly between the states and territories. For example, the New South Wales Government manages 11 per cent of the road network in that State, while the Northern Territory and Australian Capital Territory Governments manage, respectively, 63 and 100 per cent of the road networks in those jurisdictions. These variations reflect the particular division of responsibilities between the State road authority and councils.[79]

**Table 1.1: Publicly Accessible State and Council Road Length by Jurisdiction**

| Jurisdiction | State Managed Roads (kms) | Council Managed Roads (kms) | Total (kms) | State Managed Roads[a] (per cent) | Council Managed Roads (per cent) |
|---|---|---|---|---|---|
| New South Wales | 20,927 | 163,834 | 184,761 | 11 | 89 |
| Victoria | 22,380 | 129,000 | 151,380 | 15 | 85 |
| Queensland | 33,337 | 147,163 | 180,500 | 18 | 82 |
| South Australia | 22,400 | 75,000 | 97,400 | 23 | 77 |
| Western Australia | 18,025 | 131,272 | 149,297 | 12 | 88 |
| Tasmania | 3,700 | 14,323 | 18,023 | 21 | 79 |
| Northern Territory | 22,000 | 13,000 | 35,000 | 63 | 37 |
| ACT | 3,000 | .. | 3,000 | 100 | .. |
| Totals and national percentages | 145,769 | 673,592 | 819,361 | 18 | 82 |

a. The share of each state or territory's entire road network that is managed by the State road authority rather than by local councils.

*Notes* Figures may not add to totals due to rounding.
Privately managed toll roads have been excluded from these figures.

Sources: 1. Most recently available annual reports and related publications of the respective State road authorities – see discussion of individual states and territories below.

2. Bureau of Transport and Regional Economics, *State Spending on Roads*, Working Paper 56, Canberra, 2003, http://www.bitre.gov.au/publications/50/Files/wp56.pdf, p.9 (for the Northern Territory and the Australian Capital Territory only).

As Table 1.1 also illustrates, the total length of roads in each state and territory is not determined by land area alone. For example, although Victoria is the smallest of the mainland states, it has the third highest total length of roads of all the states and territories. Victoria's total length of roads is slightly greater than Western Australia's, which is the largest of the mainland states with more than ten times the land area of Victoria

Although State road authorities manage only approximately 18 per cent of Australian roads, measured by route length, these roads account for a significantly larger share of national spending than local roads due to higher spending per kilometre on State roads.[80]

State roads' share of the total Australian road length, when measured in 'lane kilometres', is also higher since local roads often have only a single lane running in each direction.

State Roads include National Network roads and other major arterials, both of which carry a relatively high share of road traffic. For example, Austroads estimated in 2000 that the then National Highway (now the National Network) comprised two per cent of total road route length but carried 14 per cent of total vehicle travel.[81] State roads are therefore the 'heavy duty' part of the road system since they carry a very large share of all vehicle, passenger and freight movements and are subject to higher construction, maintenance and operational costs.[82]

The level of road usage also varies significantly between the states and territories. For example, Victoria accounts for approximately 11 per cent of the National Road network (Table 1.2) and approximately 15 per cent of all state managed roads (Table 1.1). However, VicRoads in a joint submission to the Inquiry with the Department of Transport, stated that Victoria also accounts for approximately 26 per cent of travel on Australia's arterial road network.[83] The National Network represents approximately 17 per cent of Australia's total declared arterial road length.[84]

The most recent survey of Australia's entire road network, conducted by BTRE in 2002, found that 13 per cent of the nation's roads were located in metropolitan areas, and 87 per cent were located in non-metropolitan areas.[85]

For all states and territories, the proportion of the length of local government roads that is sealed is approximately 41 per cent. However, the proportion varies from 15 per cent in the Northern Territory to 58 per cent in Queensland.[86]

**Table 1.2: National Road Network by State and Territory**

| State | National Road Network 2008 Length | |
|---|---|---|
| | (kms) | (%) |
| New South Wales | 4,260 | 18.9% |
| Victoria | 2,470 | 11.0% |
| Queensland | 5,000 | 22.2% |
| Western Australia | 4,890 | 21.7% |
| South Australia | 2,750 | 12.2% |
| Tasmania | 410 | 1.8% |
| Northern Territory | 2,690 | 12.0% |
| Australian Capital Territory | 30 | 0.1% |
| Australian Total | 22,500 | 100% |

Source: VicRoads/Department of Transport, Joint Submission to the Inquiry, March 2010, p. 18.

Note: Percentages do not total to 100 per cent due to rounding.

There are variations in the road classification terminology used by the states and territories. These differences are outlined in the following sections. It should be noted that the following descriptions of the road network classifications used by the states and territories generally combine the administrative and functional classifications.

## Victoria

Victoria has more than 151,000 kms of roads designed for general traffic, ranging from major freeways to minor local roads. A further 50,000 kms of minor roads and tracks are located in parks and forests.[87]

Of the road network designed for general traffic (that is, excluding minor roads and tracks in parks and forests):

- arterial roads in urban and non-urban areas comprise a combined total of approximately 21,500 kms (14 per cent);
- municipal roads for general traffic comprise approximately 129,000 kms (85 per cent); and
- freeways and tollways comprise 880 kms and 61 kms respectively (a total of less than one per cent).[88]

Responsibility for Victoria's roads, including road management, maintenance and development, is determined by road type as illustrated in Table 1.3.[89]

**Table 1.3: Victorian Road Types and Responsible Authorities**

| Type of Road | Responsible Authority | Length |
|---|---|---|
| Freeways | VicRoads | Approximately 880 kms (excluding tollways) |
| Freeways (tollways)<br>- Melbourne CityLink<br>- Eastlink | <br>- Transurban<br>- ConnectEast | <br>22 kms<br>39 kms |
| Arterial Roads (Urban Areas) | Operational responsibility, including inspection, maintenance and repair of road infrastructure;<br>- Through traffic lanes - VicRoads<br>- Other (including service roads, pathways and roadside areas) - municipal councils<br>Coordination responsibility, including consents for road and infrastructure works and road closures – VicRoads | Approximately 21,500 kms combined total for urban and non-urban areas. |
| Arterial Roads (Non-Urban Areas) | Operational responsibility (not including pathways) - VicRoads<br>Coordination responsibility – VicRoads | As above |
| Municipal Roads and Other Roads | | |
| - Municipal roads | - Municipal councils | - 129,000 kms |
| - Non-arterial State roads and minor roads and tracks | - Department of Sustainability & Environment and others, including Parks Victoria | - 50,000 kms |

Source: VicRoads, *Victoria's Road Network*, viewed 3 February 2010, http://www.vicroads.vic.gov.au/Home/Moreinfoandservices/RoadManagementAndDesign/TypesOfRoads/VictoriasRoadNetwork.htm.

Based on the figures in Table 1.3, state roads (freeways and arterials) currently comprise approximately 14.2 per cent of Victoria's road network. Municipal Roads comprise the remaining 85.8 per cent of Victoria's road network respectively. (These figures do not include minor roads and tracks or tollways).

## New South Wales

New South Wales has approximately 184,761 kms of road network, comprising:

- 17,981 kms of State roads managed by the Roads and Traffic Authority (RTA). This includes 4,269 kms of National Road Network, which is partly funded by the federal government and 163 kms of privately-funded toll roads;
- 2,946 kms of State-managed regional and local roads in the unincorporated area of New South Wales;
- 18,490 kms of council-managed Regional Roads, which receive significant State grant funds administered by the RTA; and
- 145,344 kms of council-managed local access roads.[90]

Based on the above figures, State-managed roads (State roads plus regional and local roads in the unincorporated area) comprise approximately 11 per cent of the New South Wales road network. Council-managed roads (Regional roads and local access roads) comprise the remaining 89 per cent of the state's road network.

## Queensland

Queensland has a publicly accessible road network of approximately 180,500 kilometres.

The State Road network is 33,337 kilometres, comprising:

- 5,040 kms of the National Network;
- State Strategic Roads – 4,150 kms; and
- Regional and District roads – 24,147 kms.[91]

Council-managed roads comprise 147,163 kilometres of roads.

State managed roads therefore comprise approximately 18 per cent of the total road network and council-managed roads comprise the remaining 82 per cent. State roads carry approximately 80 per cent of the state's road traffic.[92]

## South Australia

South Australia has a public road network of approximately 97,400 kilometres, comprising:

- 12,300 kms of State-managed arterial roads (including 2,750 kms within the National Network):
- 10,100 kms of Sate-managed outback roads; and
- 75,000 kms of council-managed local roads.[93]

State-managed roads (arterial and outback roads) therefore comprise approximately 23 per cent of the total road network. Council-managed (local) roads comprise the remaining 77 per cent.

## Western Australia

Western Australia has a publicly accessible road network of approximately 149,297 kilometres, comprising:

- 6,041 kms of State highways;
- 7,082 kms of Main roads;
- 4,902 kms of National Network roads; and
- 131,272 kms local roads.[94]

Western Australia also has 30,680 kms of roads classified as Forestry roads, National Park roads and Privately Maintained roads, which are not included in the above total.[95]

State-managed roads therefore total 18,025 kms and comprise approximately 12 per cent of the total publicly accessible road network. Council-managed (local) roads total 131,272 kms and comprise the remaining 88 per cent.

## Tasmania

Tasmania has a publicly accessible road network of approximately 18,023 kilometres, comprising approximately:

- 3,700 kms of State-managed roads (including 561 kms of the National Network); and
- 14,323 kms of Council-managed local roads.[96]

Tasmania also has approximately 6,000 kms of forestry roads which are not included in the above.[97]

Tasmanian roads are classified as follows:

- major highways – connecting cities and ports;
- urban connectors – linking suburbs with commercial areas;
- residential streets; and
- forestry roads.[98]

State-managed roads comprise approximately 21 per cent of the total publicly accessible road network. Council-managed (local) roads comprise the remaining 79 per cent.

## Northern Territory

The Northern Territory has a publicly accessible road network of approximately 35,000 kilometres, comprising approximately:

- 22,000 kms of State-managed roads; and
- 13,000 kms of council-managed roads.[99]

Territory managed roads include:

- Nation Network roads;
- rural arterial roads;
- arterial links in major urban centres; and
- local roads in unincorporated areas.[100]

## Australian Capital Territory

The Australian Capital Territory has a publicly accessible road network of approximately 3,000 kilometres, including 30 kms within the National Network. The Government of the Australian Capital Territory is responsible for both State and municipal services and therefore has responsibility for managing the entire road network.[101]

Roads are the responsibility of Roads ACT, within the Department of Territory and Municipal Services and are classified as arterials, major collectors or municipal streets.[102]

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Chapter

2

# Overview of Road Funding Arrangements

## Introduction

In 2009–10, expenditure on roads by the Commonwealth Government will account for an estimated 1.8 per cent of total federal spending, exclusive of GST payments to the states and territories.[1] By comparison, federal expenditure on health, education and defence in 2009–10 will account for an estimated 17.3 per cent, 11.9 per cent and seven per cent, respectively.[2]

Federal funding is provided through a number of separate programs, including under:

- the Nation Building Program;
- the Nation Building Plan for the Future, comprising payments from the Building Australia Fund and under the Major Cities Program;
- a proposed new Infrastructure Fund (to commence from 2012-13);
- Interstate Road Transport; and
- the untied financial assistance grants for local roads.

Federal road funding is allocated on an annual basis under the Commonwealth Budget. This includes a proportion of the total funding for construction and maintenance of roads under the Nation Building Program, as set out in individual agreements between the Commonwealth Government and the states for the period 2008-09 to 2013-14.[3]

## Funding Levels

Federal, state and local governments, and the private sector, spent an estimated $13.9 billion on road construction and maintenance during 2007-08.[4] The largest contribution to road funding during 2007-08 came from state governments (53 per cent), followed by: local governments (22 per cent); the federal government (20 per

cent); and the private sector (five per cent), see Table 2.2 next page.

During the years 2000-01 to 2007-08, state governments contributed an annual average of approximately 43 per cent of total road funding, local government 28 per cent and the federal government 24 per cent. The private sector contributed an annual average of five per cent, see Table 2.2 on page 35.

The estimated expenditure by each level of government, and by the private sector, for the period 2000-01 to 2007-08, is shown in Table 2.1, and as a percentage of total expenditure in Table 2.2.

**Table 2.1: Funding of Road Related Expenditure 2000–01 to 2007–8**

| Source | 2000-01 | 2001-02 | 2002-03 | 2003-04 | 2004-05 | 2005-06 | 2006-07 | 2007-08 |
|---|---|---|---|---|---|---|---|---|
| | ($ millions) | | | | | | | |
| Federal | 2 063.6 | 2 435.4 | 2 221.3 | 2 222.8 | 2 477.5 | 4 775.6 | 2 959.8 | 2 723.8 |
| State | 5 254.5 | 4 679.7 | 4 627.4 | 4 399.9 | 4 477.6 | 2 734.9 | 5 970.8 | 7 335.4 |
| Local | 3 865.2 | 3 650.1 | 3 526.1 | 3 422.9 | 3 088.3 | 2 268.5 | 2 677.8 | 3 127.3 |
| Private sector | 152.8 | 211.2 | 543.7 | 383.9 | 466.9 | 632.4 | 532.8 | 740.0 |
| Total | 11 336.1 | 10 976.5 | 10 918.5 | 10 429.5 | 10 510.3 | 10 411.3 | 12 141.2 | 13 926.5 |

Source: Bureau of Infrastructure, Transport and Regional Economics, *Public Road-Related Expenditure and Revenue in Australia 2009*, Information Sheet 37, Canberra, 2009, p. 4.

Notes: Components may not add to totals due to rounding.

Amounts have been adjusted into 2007/08 prices using a price index developed by the Bureau of Infrastructure, Transport and Regional Economics which aims to account for increases in the costs of road construction and maintenance over time. According to the index, the price of inputs to road construction and maintenance increased by 65.4 per cent between 1993-94 and 2008-09 (p.6).

**Table 2.2: Percentage Contribution to Total Road Funding by Governments and Private Sector 2000–01 to 2007–08**

| Source | 2000-01 | 2001-02 | 2002-03 | 2003-04 | 2004-05 | 2005-06 | 2006-07 | 2007-08 | Average |
|---|---|---|---|---|---|---|---|---|---|
| Federal | 18% | 22% | 20% | 21% | 24% | 46% | 25% | 20% | 24% |
| State | 47% | 43% | 43% | 42% | 43% | 26% | 49% | 53% | 43% |
| Local | 34% | 33% | 32% | 33% | 29% | 22% | 22% | 22% | 28% |
| Private sector | 1% | 2% | 5% | 4% | 4% | 6% | 4% | 5% | 5% |
| Total | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |

Source: Percentages are derived from calculations based on the data in Table 2.1.

Note: 1. Some components have been rounded to add to totals of 100 per cent.

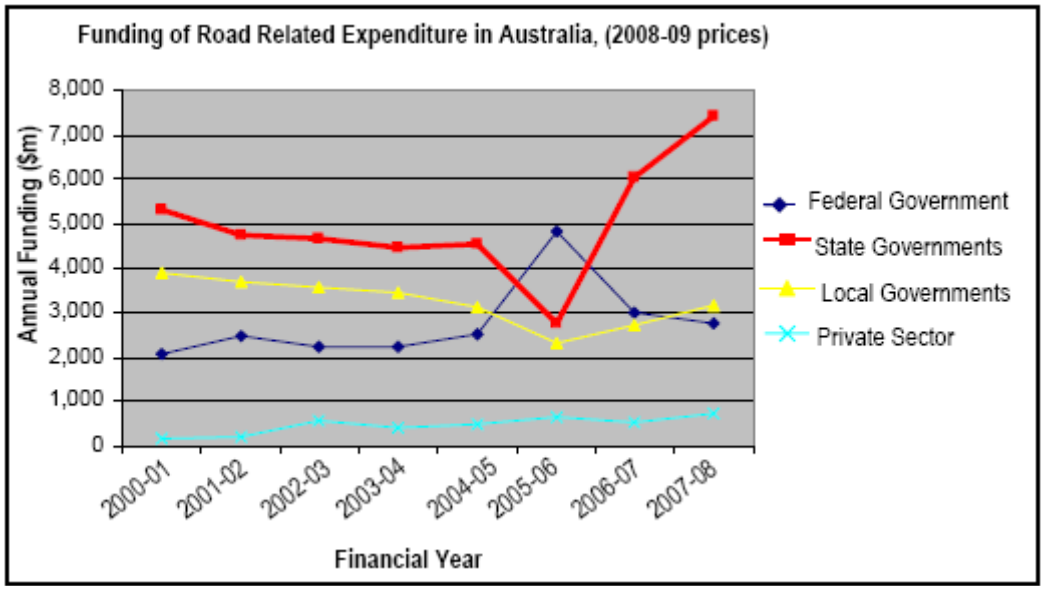
The figures in tables 2.1 and 2.2 include road construction, maintenance and some associated administration and planning costs. Expenditure not directly associated with road construction and maintenance has been excluded where possible.[5]

In addition, the figures for each level of government show all the expenditure from own sources at that level of government. That is, the figures do not include payments from other levels of government. For example, state expenditure on local roads is shown as part of state expenditure.[6]

Private sector expenditure in Tables 2.1 and 2.2 represents the total value of assets transferred to state and local government from private sector sources, almost all of which is transferred to local government, such as local roads constructed for new housing developments.[7]

As shown in Figure 2.1, during the period 2000-01 to 2007-08, state governments increased funding for road related expenditure while federal funding remained steady or declined slightly. However, as noted above, federal road funding has increased significantly since the establishment of the Nation Building Program and Infrastructure Australia. Estimated expenditure under the Nation Building Program represents an annual average of approximately $4.6 billion from 2008-09 to 2013-14.[8]

**Figure 2.1: Historical Funding of Road Related Expenditure in Australia (2008–09 prices)**




Source: VicRoads/Department of Transport, Joint Submission to the Inquiry, March 2010, p. 12.

## States' Share of Federal Funding

There is significant variation in the share of federal road funding received by the states and territories. This is illustrated both in Table 2.3 below and Figure 2.2 on page 40. While this applies to all federal road funding programs, most of the variation is due to differences in the allocation of funding for construction of specific road projects under the Nation Building Program.

**Table 2.3: States' Shares of Road Funding Under the Nation Building Program 2008–09 to 2013–14**

| State / Territory | Total investment in continuing road projects | Total investment in new road projects | Total road maintenance funding | Major road projects funded in the 2009-10 Budget | Total road funding | Share of Nation Building Program funding (%) |
|---|---|---|---|---|---|---|
| | | | ($ millions) | | | |
| Australian Capital Territory | — | 37.50 | 2.98 | — | 40.48 | 0.2% |
| New South Wales | 479.32 | 4,208.00 | 698.23 | 2,069.00 | 7,454.55 | 35.8 |
| Northern Territory | 21.27 | 272.3 | 127.90 | — | 421.47 | 2 |
| Queensland | 786.90 | 4,604.00 | 547.01 | 884.00 | 6,821.91 | 32.7 |
| South Australia | 82.43 | 888.70 | 243.26 | — | 1,214.39 | 5.8 |
| Tasmania | 9.19 | 260.35 | 37.43 | — | 306.97 | 1.5 |
| Victoria | 116.51 | 2,344.20 | 304.08 | — | 2,764.79 | 13.3% |
| Western Australia | 36.46 | 1,464.00 | 325.92 | — | 1,826.38 | 8.8 |
| Totals | 1,532.08 | 14,079.05 | 2,286.81 | 2,953 | 20,850.94 | 100.00 |

Source: 1. Department of Infrastructure, Transport, Regional Development and Local Government, *National Projects*, viewed 21 January 2010, http://www.nationbuildingprogram.gov.au/funding/projects/index.aspx. The individual state by state breakdowns of the road projects and road maintenance funding under the Nation Building Program, are reproduced at Appendix C.

Notes: 1. Funding for rail under the Nation Building Program has been excluded in calculating the above totals.

2. The 2010-11 Commonwealth Budget contained no new road funding but brought forward previously allocated funding for a number of projects into 2009-10. See, http://www.budget.gov.au/2010-11/content/bp2/html/bp2_expense-16.htm

Table 2.3 shows the estimated share of Nation Building Program road funding for each state and territory for the period 2008-09 to 2013-14. This funding is for construction and maintenance of both continuing (that is under the former AusLink program) and new road projects. As the table above shows, road construction and maintenance projects on the National Network account for approximately 97 per cent of the total funding (nearly $21 billion), while funding for 'off-network' roads (that is, roads not on the National Network) accounts for approximately three per cent, or approximately $693 million.[9] Total funding includes both the agreed amounts under the National Partnership Agreements for the Nation Building Program, as well as additional funding provided in the 2009-10 budget which includes funding from the Building Australia Fund. As discussed below, the 2010-11 Commonwealth Budget

contained no new road funding but brought forward previously allocated funding for a number of projects into 2009-10.[10]

Federal funding under the Nation Building Program proposed for the period 2009-10 to 2013-14 includes an estimated $4.5 billion in funding for rail.[11] Rail funding therefore has a significant affect on the overall share of federal transport funding allocated to each of the states and territories. For example, although Victoria's allocation of federal road funding under the Nation Building Program is approximately 13 per cent (Table 2.3 on previous page), it will in fact receive approximately 16 per cent of combined road and rail Nation Building Program funding.[12] In addition, the inclusion of Victoria's allocation of rail infrastructure funding under other programs, brings its share of total federal transport funding to approximately 22 per cent.[13]

## Federal Funding Allocation for State and Local Government Roads

The majority of federal funding for roads is allocated to state governments rather than to local governments. For the period 2009-10 to 2013-14, the federal government will allocate approximately $18 billion of road funding to the states and territories (79 per cent) compared to an estimated $4.8 billion for local government (21 per cent).[14]

Federal funding for state managed roads during the period will comprise:

- investment in roads within the national network ($14.2 billion);
- off-network projects, $938 million;
- Black Spot funding, $357.5 million;
- investment in roads from the Building Australia Fund, $2.2 billion; and
- interstate road transport funding, $352 million.[15]

Federal funding for local government managed roads during this period will comprise: Roads to Recovery funding of $1.7 billion; and Untied Local Road Grants funding of $3.1 billion.[16]

As noted in Chapter One, federal funding assistance for roads was for many years provided only to the states. This may explain the significantly greater proportion of federal funding that is allocated to State roads than to Council roads. The difference in the proportions allocated to State roads and Council roads may also reflect the comparatively higher construction and maintenance costs of arterial

roads, including the major arterial roads that comprise the National Network.

As discussed earlier, road construction projects on the National Network are selected on the basis of their national significance.[17]

## Federal Programs

# The Nation Building Program

The main source of federal road funding to the states is the Nation Building Program which began in 2008, following the Commonwealth Government's announcement of the National Transport Plan and Policy Framework 'A New Beginning', which replaced the transport policy under AusLink.[18]

Programs formerly administered under AusLink were renamed as Nation Building Programs following the passage of the *Nation Building Program (National Land Transport) Act 2009* and the amendment of the *AusLink (National Land Transport) Act 2005* during the financial year 2008-09.[19]

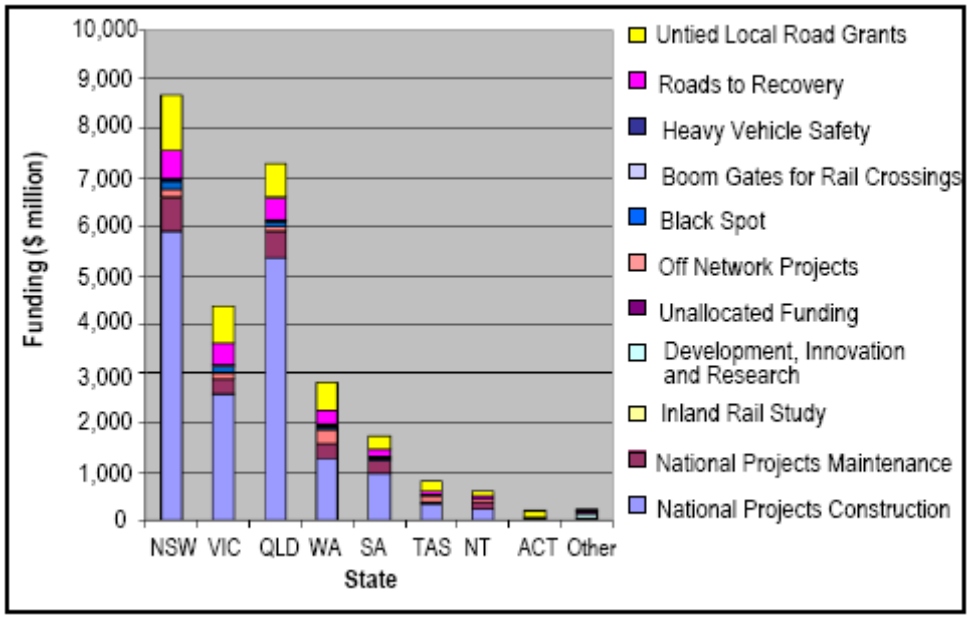
The Commonwealth Government is proposing to invest $37 billion on road and rail infrastructure through the Nation Building Program over the period 2008-09 to 2013-14.[20]

An average of $4.6 billion per year – or a total of approximately $27.6 billion – has been proposed for road funding for the six years from 2008-09 to 2013-14.[21] The Nation Building Program has the following components:

- National Network construction. Investment in road construction projects on the National Network selected on the basis of their national significance.
- National Network maintenance. Investment in maintenance works on existing parts of the National Network.
- Off-network projects. Investment in road projects not located on the National Network.
- Roads to Recovery Program. Road funding allocations for local councils in each state and territory.
- Black Spots Program. Funding for measures at road locations where crashes occur, designed to reduce the risk and severity of crashes.
- Heavy Vehicle Program, and
- Boom Gates for Rail Crossings.[22]

The relative allocation of federal road funding under each of these components is illustrated in Figure 2.2.

**Figure 2.2: Federal Land Transport Funding by State and Program 2008–09 to 2013–14**




Source: VicRoads, Presentation, Melbourne, 12 April 2010, Slide 11.

The Untied Local Roads Grant is not part of the Nation Building Program and is discussed separately below.

The vast majority of Nation Building Program funding is allocated to roads within the National Network managed by state governments. Some Nation Building Program funding is also allocated to state managed arterial roads outside of the National Network and to local roads, primarily under the Roads to Recovery program managed by local government.

### National Network Construction and Maintenance and Off-Network Projects

The largest allocation of road funding to the states and territories is for National Network construction projects, which is allocated on a project specific basis. During the period 2008-09 to 2013-14, the Commonwealth Government proposes to allocate a total of $16.5 billion to this category. During the period, a further $2.3 billion will be allocated to road maintenance projects on the National Network; and $1 billion will be allocated to Off-Network construction and maintenance projects (that is, roads which are not part of the National Network).[23]

As noted in Table 2.3 above, the Commonwealth Government has committed more than $2.3 billion in funding to Victoria for new road projects under the Nation Building Program.[24] Combined federal and state funding for road and rail projects under the agreement

totals more than $4 billion of projects. See Appendix C for a full list of the agreed projects.

### Roads to Recovery

Under this program, funds are paid directly from the Commonwealth Government to councils. Councils are required to advise the Commonwealth Government of the projects being funded and to erect signs identifying projects being funded under the program.

*The Roads to Recovery Program Funding Conditions 2009 – 2014* include:

- a requirement that local councils match the amount of funding provided by the Commonwealth; and

- detailed planning, reporting and accountability requirements, including the submission of a detailed works schedule to the Department of Infrastructure, Transport, Regional Development and Local Government.[25]

The Commonwealth Government has committed $350 million annually to 2014, which will be distributed as shown in Table 2.4. The state distribution of funds for 2009-10 is shown in Table 2.5.

Funding under the Roads to Recovery Program is distributed to the states and territories in fixed proportions, which are similar, but not identical, to the fixed proportions that apply to the distribution of the Untied Local Roads Grant (discussed below). Victoria receives a fixed share of 20.3 per cent of the total.[26]

Within each state, funding is distributed to local councils on the basis of shares estimated by the various State Grants Commissions for the purposes of allocating the Untied Financial Assistance Grants. However, the funds are distributed directly from the Commonwealth Government to municipalities as specific purpose payments rather than through the Grants Commissions. Municipalities submit applications to the federal department and funds are distributed accordingly.[27]

**Table 2.4: Roads to Recovery Federal Funding to Councils by State and Territory 2009–10 to 2013–14**

| State | $ millions | % of total |
|---|---|---|
| New South Wales | 487.58 | 28 |
| Victoria | 356.10 | 20 |
| Queensland | 356.00 | 20 |
| Western Australia | 256.00 | 15 |
| South Australia | 157.40 | 9 |
| Tasmania | 57.00 | 3 |
| Northern Territory | 51.00 | 3 |
| Australian Capital Territory | 28.00 | 2 |
| Australian Total | 1,749.08 | 100 |

Sources: Department of Infrastructure, Transport, Regional Development and Local Government, *Roads to Recovery Funding Allocations 2009-2014*, viewed 4 February 2010, http://www.nationbuildingprogram.gov.au/funding/r2r/index.aspx.

Notes: Some component percentages have been rounded to total to 100 per cent.

State and national totals include funding for unincorporated areas in New South Wales, Victoria, South Australia and the Northern Territory but exclude funding for Christmas Island Shire Council and the Cocos (Keeling) Islands Shire Council ($655,000 and $270,000 respectively) as these are administered by the Federal Government.

**Table 2.5: State Distribution of Roads to Recovery Federal Funding 2009–10**

| NSW | VIC | QLD | WA | SA | TAS | NT | ACT | Total |
|---|---|---|---|---|---|---|---|---|
| | | | | $m | | | | |
| 97.5 | 71.2 | 71.2 | 51.2 | 31.5 | 11.4 | 10.2 | 5.6 | 350.0 |
| (27.9%) | (20.3%) | (20.3%) | (14.6%) | (9%) | (3.3%) | (2.9%) | (1.6%) | (100%) |

Source: Australian Local Government Association, Submission to the Inquiry, February 2010, p. 4.

## Black Spot Program

The Black Spot Program provides funding for roadworks at locations which have a poor crash record. Funding is available for all roads including local roads. The proportion spent on local roads depends on the projects submitted and as a result varies between jurisdictions and years.[28] In the case of Victoria it is the policy of

VicRoads to generally apply the Federal Black Spots funding to local roads.[29]

Locations can be nominated by state and territory governments, local councils, community groups and associations, road user groups, industry and individuals. Nominations are considered by a Consultative Panel in each state made up of representatives drawn from community and road user groups, industry, federal and local government and state road and transport agencies.[30]

States and territories play a coordinating role, with funding provided to state agencies which in turn allocate the funding to a council if it is a local road project.[31]

The Commonwealth Government will provide a total of $59.5 million each year from 2010-11 to 2013-14 for road safety projects under the Black Spot Program.[32] However, it allocated approximately double this amount, a total of $119.5 million, in 2009-10.[33] The 2009-10 allocation was distributed between the states and territories as shown in Table 2.6.

**Table 2.6: State Distribution of Federal Black Spots Program Funding**

| NSW | VIC | QLD | WA | SA | TAS | NT | ACT | Total |
|---|---|---|---|---|---|---|---|---|
| | | | | $m | | | | |
| 38.3 | 27.2 | 24.3 | 13.1 | 9.5 | 3.2 | 2.0 | 1.9 | 119.5 |
| (32.0%) | (22.8%) | (20.3%) | (11.0%) | (8%) | (2.7%) | (1.7%) | (1.6%) | (100%) |

Source: Australian Local Government Association, Submission to the Inquiry, February 2010, p. 4.

## Heavy Vehicle Safety and Productivity Program

The Heavy Vehicle Safety and Productivity Program is aimed at delivering improved safety and productivity outcomes for the heavy vehicle industry and other road users, through the provision of $70 million towards heavy vehicle safety and productivity projects over four years from 2008-09 to 2011-12.[34]

Specific program objectives include:

- reducing the proportion of road crashes involving heavy vehicles by targeting heavy vehicle driver fatigue and speed; and
- increasing productivity by enhancing the capacity of existing roads.[35]

The program provides funds to state and territory road authorities under four categories:

- Rest Area Projects
- Parking/Decoupling Bay Projects
- Road Enhancement Projects, and
- Technology Trial Projects.[36]

The first round of funding of $30 million over 2008-09 and 2009-10 is now fully allocated as shown in Table 2.7. Submissions for Round Two**,** of $40 million over 2010-11 to 2011-12**,** closed on 30 September 2009 and at the time of writing, funding is being allocated.[37]

**Table 2.7: State Distribution of Heavy Vehicle Program Federal Funding 2008–09 to 2009–10**

| NSW | VIC | QLD | WA | SA | TAS | NT | ACT | Total |
|---|---|---|---|---|---|---|---|---|
| | | | | $m | | | | |
| 8.05 | 5.70 | 6.40 | 2.71 | 4.50 | 1.50 | 1.00 | 0.55 | 30.41 |
| (26.5%) | (18.7%) | (21.0%) | (9.0%) | (14.8%) | (5.0%) | (3.0%) | (1.8%) | (100%) |

Source: Department of Infrastructure, Transport, Regional Development and Local Government, *Heavy Vehicle Program*, viewed 2 February 2010, http://www.nationbuildingprogram.gov.au/funding/Heavyvehicles/.

### Boom Gates for Rail Crossings Program

The Boom Gates for Rail Crossings Program is aimed at funding the installation of boom gates and other safety measures at approximately 300 high risk rail crossings across Australia. Under this program, the Australian Government is providing $150 million to the states and the Northern Territory over 2008-09 and 2009-10.[38]

Victoria has been allocated a total of $30.29 million (approximately 20 per cent) of this funding.[39]

## Infrastructure Australia and the Nation Building Plan for the Future

A key role of Infrastructure Australia is to advise governments on nationally significant infrastructure priorities.[40] Commonwealth Government funding allocations under the Building Australia Fund are guided by a national audit and infrastructure priority list developed by Infrastructure Australia.[41] Infrastructure Australia also advises the Commonwealth Government on funding allocations under the Major Cities Program.[42] Together, the Building Australia Fund and the Major Cities Program comprise the Nation Building Plan for the Future.[43]

Infrastructure Australia was established in 2008 to:

> … drive the development of a long term, coordinated national approach to infrastructure planning and investment.[44]

Infrastructure Australia is a statutory advisory council consisting of 12 members from industry and all levels of government chaired by Sir Rod Eddington.[45]

## The Building Australia Fund

In 2009, the Commonwealth Government established the Building Australia Fund to help fund a 'shortfall' in critical infrastructure in the transport, communications, water and energy sectors.[46] The Building Australia Fund was established with an initial instalment of $20 billion and, subject to final budget outcomes, will receive funds from future budget surpluses.[47] Allocations from the Building Australia Fund are guided by Infrastructure Australia's national audit and infrastructure priority list.[48]

In order to facilitate the prioritisation of funding decisions under the Building Australia Fund, in 2008 the Commonwealth Government requested Infrastructure Australia to conduct a National Infrastructure Audit and to develop and maintain an Infrastructure Priority List for consideration by the Council of Australian Governments.[49]

Infrastructure Australia issued a call for public and industry submissions for input in developing the Infrastructure Priority List. This was supplemented by submissions from the Commonwealth, states and territories. Infrastructure Australia received over 600 public submissions containing more than 1,000 suggested initiatives.[50]

Infrastructure Australia then applied a prioritisation methodology that considered whether a proposed project:

- supported one of its seven themes for action (a number of which are relevant to Australia's land transport infrastructure);
- was of national significance;
- would make a clear and positive contribution to Australia's policy goals;
- demonstrated significant long term national benefits to Australia as measured by its economic benefit-cost ratio; and
- demonstrated robust delivery mechanisms to ensure that it could be successfully implemented.[51]

In May 2009, Infrastructure Australia released a report that contained infrastructure projects which it identified as either 'ready to proceed' or as 'pipeline' projects, which would be suitable for future investment, subject to further project development and analysis.[52] Notably, Infrastructure Australia identified a significant role for private sector involvement in the funding of the projects on its priority list.[53]

The infrastructure initiatives identified as ready to proceed included the following road projects, with a combined estimated cost of over $10 billion:

- Hunter Expressway. Proposed construction of a 40 kilometre dual carriageway link between the F3 Freeway and Branxton in the Lower Hunter region of New South Wales, estimated cost: $1.2 billion.

- Majura Parkway stage two. Proposed construction of a freight bypass to replace the existing Majura Road in the Australia Capital Territory, estimated cost: $220 million.

- Pacific Highway Corridor. Upgrades aimed at reducing delays and congestion between Hexham and Ballina in New South Wales, estimated cost: $6.7 billion.

- Ipswich Motorway. Upgrades to increase the capacity of the primary east-west road corridor in Brisbane's south, estimated cost: $1.9 billion.[54]

A number of rail (public transport and freight) projects – with a combined estimated cost of over $9 billion – were also identified as ready to proceed. Nearly eighty per cent of this recommended expenditure was for the following rail projects in Victoria:

- East-West Rail Tunnel, also referred to as Melbourne Metro Stage 1. Proposed construction of a commuter rail tunnel in Melbourne from South Kensington to Domain (St Kilda Road) with stations at Arden Street, Parkville, Melbourne Central, Flinders Street and Domain, to increase capacity by an additional 120 trains during peak periods each day, or 84,000 additional commuters, estimated cost: $3.5 billion, and

- Regional Rail Link. Proposed construction of a new dedicated rail link between West Werribee in Melbourne's west to South Kensington to provide capacity for the additional peaks that will be created by the East-West Rail Tunnel, and to allow greater segregation of services on all lines that enter the city.[55] Estimated total cost of $4.3 billion.[56]

On 12 July 2010, the Minister for Public Transport, Mr Martin Pakula MLC, announced that the Regional Rail Link is now fully funded and

that the project has been separated into major works packages which will go to market in the coming months.[57]

Infrastructure Australia's 2009 report, *National Infrastructure Priorities,* also identified a further 28 'pipeline' projects for possible future investment, which included a number of additional potential road and rail projects.[58] A full list of Infrastructure Australia's ready to proceed and pipeline projects is attached at Appendix D.

In June 2010, Infrastructure Australia released an updated infrastructure priority list as part of its report to the Council of Australian Governments (COAG). The list is reproduced at Appendix E. The main change to the priority list was the differentiation between proposed infrastructure projects – to provide greater transparency and an indication of their stage of development – between: ready to proceed; threshold; real potential; or early stage.[59]

The updated list does not identify any new road projects as ready to proceed but retains the recommendations for construction of the Majura Parkway and upgrades to the Pacific Highway.[60] The former has yet to receive federal funding and the latter was allocated only partial funding under the 2009-10 Commonwealth Budget. The other ready to proceed road projects identified in the 2009 Infrastructure Priority List were allocated funding under the 2009-10 Commonwealth Budget and therefore do not appear on the updated 2010 Infrastructure Priority List. Victoria's Regional Rail Express also received an allocation of funding ($3.2 billion over six years) under the 2009-10 Commonwealth Budget and therefore also does not appear on the updated list.[61]

In 2010-11, the Commonwealth Government will allocate an estimated $812.1 million from the Building Australia Fund, comprising $500.1 million for rail in Victoria and South Australia and $312 million for roads in New South Wales.[62]

## The Major Cities Program

In 2009, the Major Cities Unit was established within Infrastructure Australia to provide advice to the Commonwealth Government on issues of policy, planning and infrastructure that impact on Australia's cities and suburbs.[63]

In March 2010, the Major Cities Unit released its inaugural report, *State of Australian Cities Report 2010*.[64]

Federal Minister for Infrastructure, Transport, Regional Development and Local Government, the Hon Anthony Albanese MP, in a speech to the Queensland Media Club, 5 March 2010, described the report as a 'critical step in elevating the cities' agenda to the national stage' and stated that:

> Over the coming months, using this Report as a baseline, the Major Cities Unit will contribute to the Government's national urban policy. It will inform our thinking, expand our understanding and target our actions.[65]

The Commonwealth Government allocated a combined $57.3 million for road and rail in 2010-11 under the Major Cities Program in the 2010-11 Commonwealth Budget.[66]

### Intergovernmental Payment Arrangements

As with payments under the Nation Building Program, payments for road and rail projects from the Building Australia Fund are made in the form of National Partnership Project Payments under an Intergovernmental Agreement. These payments are also subject to individual National Partnership Agreements between the Commonwealth and recipient states and territories. Similar to the Nation Building Program National Partnership Agreements, the Nation Building Plan for the Future National Partnership Agreements contains a schedule that sets out the funding and timelines for agreed projects (see Appendix F).

## Regional Infrastructure Fund

In the 2010-11 Commonwealth Budget, the Government announced the establishment of a Regional Infrastructure Fund associated with the planned introduction of the Minerals Resource Rent Tax (MRRT) (then known as the Resource Super Profits Tax (RSPT)) from 1 July 2012. The Commonwealth Government also stated that the Fund would make infrastructure spending a permanent feature of federal and state budgets for the first time.[67]

The Commonwealth Government announced that it would invest $6 billion from the RSPT to establish the Fund, beginning in 2012-13 with $700 million.[68] The Fund would be allocated to rail, roads, ports, and other infrastructure, with the 'lion's share' to be provided to the major resource states of Western Australia and Queensland.[69]

In mid-July 2010, Federal Treasurer Wayne Swan revealed an updated revenue forecast for the previous RSPT and the new MRRT, which showed that the RSPT could have raised $24 billion in its first two years of operation – twice the original forecast of $12 billion. The new data also revealed that the replacement of the RSPT with the MRRT provided the mining industry with $7.5 billion in concessions. The Commonwealth Government confirmed that the revised revenue forecasts would not result in any change to the $6 billion originally allocated to the Regional Infrastructure Fund.[70]

Allocations to individual states and territories from the Fund have yet to be finalised, although the budget stated that such allocations would recognise the large resource-related infrastructure demands of the resource-rich states.[71] The proportion of this funding that will be allocated to roads is therefore currently unknown.

## The Untied Local Roads Grant

The Commonwealth Government also provides funding for local roads in the form of the Untied Local Roads Grant (the local roads grant).[72]

This is the largest single source of federal financial assistance to local councils for roads expenditure, representing a national allocation of $604.5 million in 2009-10. By comparison, the national allocation under the Roads to Recovery Program – the second largest federal funding program for local roads – was $350 million in 2009-10.[73]

The local roads grant is one of two components of the Commonwealth Government's Financial Assistance Grant to local councils. The other component is the General Purpose Assistance (the general purpose component), which is also paid annually and which in 2007–08 totalled more than $1.2 billion. The general purpose component is distributed among the states on a per capita basis.[74]

The local roads grant, paid under the *Local Government (Financial Assistance) Act 1995*, is provided to states on the condition that it is passed on directly to local government.[75]

Unlike the federal funding for local roads under the Roads to Recovery program, the grant is untied, which means that councils are free to allocate the funding to areas of expenditure other than roads.[76]

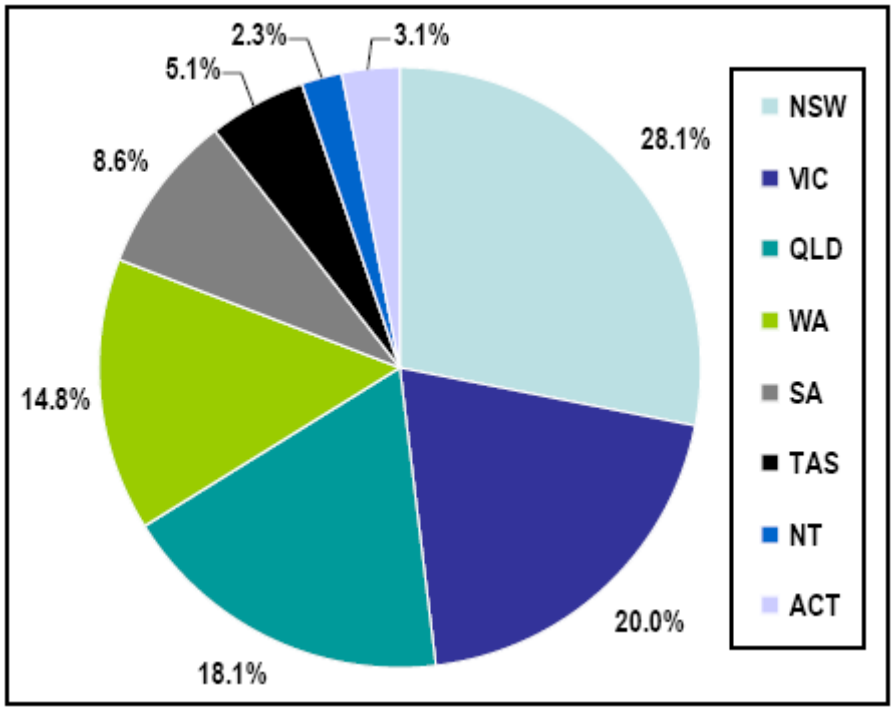
The grant also differs from the Roads to Recovery program funding in that it is not paid directly from the Commonwealth Government to local councils but through local government grants commissions that operate in each state.[77]

The program is ongoing and is part of the general transfer of tax revenue from the Commonwealth Government to state and local government.[78]

Each of the states and territories receives a fixed share of the local roads grant (see Figure 2.3 over), which has remained unchanged since the untying of the grant in 1991.[79] This issue is discussed in detail in the following chapter.

The local roads grant is distributed between councils within each state and territory according to separate formulae calculated by the individual state grants commissions.[80]

**Figure 2.3: States' Shares of Untied Local Road Grants**




Source: VicRoads/Department of Transport, Joint Submission to the Inquiry, March 2010 p. 23.

Although the states and territories receive a fixed share of the local roads grant each year, the amounts that they receive vary in accordance with annual changes to the national total, which is adjusted to account for population changes and inflation. The following steps describe the current arrangements for the annual distribution of both the local roads grant and general purpose grant:

- Towards the end of the financial year, the Commonwealth Government estimates the total national amount for both grants for the next financial year by multiplying the total entitlements paid in the previous financial year by an 'estimated escalation factor', which is based on changes in population and the consumer price index (CPI) over the preceding twelve months.

- The states and territories are advised of their estimated entitlements.

- Local government grants commissions in each state, and in the Northern Territory, make recommendations to their respective minister for local government, regarding the distribution of the grants between local governments.

- These recommendations are forwarded to the Federal Minister for Infrastructure, Transport, Regional Development and Local Government.

- The Federal Minister approves payment of the recommended grants once satisfied that all legislative requirements have been met.

- The grants are paid in quarterly instalments to the states and territories, which then pass them on to local councils as untied grants.

- When the actual CPI and population changes become available near the end of the financial year, an 'actual escalation factor' is calculated and the actual grant entitlement is determined.

- Any difference between the estimated and actual grant entitlement is reflected in an adjustment to the estimated allocation to local councils for the next financial year.[81]

## Intergovernmental Agreement on Federal Financial Relations

Federal road funding payments are being progressively brought under a new financial framework which began on 1 January 2009.

In November 2008, the Council of Australian Governments (COAG) agreed to major reforms to intergovernmental relations with the signing of the *Intergovernmental Agreement on Federal Financial Relations* (Intergovernmental Agreement). The Intergovernmental Agreement established a new overarching framework for federal financial relations from 1 January 2009.[82]

The Intergovernmental Agreement is aimed at improving the quality and effectiveness of government services by: clarifying who is responsible for the delivery of government services; creating flexibility in the delivery of services; increasing accountability to the public; and providing incentives for reform.[83]

COAG, on its website, has described the changes introduced by the Intergovernmental Agreement as 'the most significant reform of Australia's federal financial relations in decades'.[84]

COAG is the primary decision making body with respect to the implementation of the framework, while the Ministerial Council for Federal Relations is responsible for overseeing its operation.[85]

Key features of the Intergovernmental Agreement, which are of particular relevance to Australia's road funding arrangements include:

- the centralisation of payment arrangements – payments to the states (except local government payments) are now centrally processed by the Commonwealth Treasury and paid directly to the states and territories each month; and

- the establishment of a performance reporting framework.[86]

Under the Intergovernmental Agreement, the Commonwealth has committed to the provision of ongoing financial support for service delivery by the states and territories in the form of:

- general revenue assistance, including the ongoing provision of GST payments, to be used for any purpose;

- National Specific Purpose Payments, each of which is associated with a National Agreement (there are six National Agreements, covering the areas of healthcare, education, skills and workforce development, disability, affordable housing and indigenous Australians); and

- National Partnership Payments, which include payments explicitly created under National Partnership Agreements, payments under agreements which pre-dated the Intergovernmental Agreement and which are automatically deemed to be National Partnership payments and payments used to fund Federal election commitments.[87] There are three categories of National partnership payments under the new framework:

    - National partnership project payments;

    - National partnership facilitation payments; and

    - National partnership reward payments.[88]

Federal funding to the states and territories for infrastructure, such as road and rail, are made as National Partnership payments.[89]

The new federal financial framework does not apply to Roads to Recovery and Financial Assistance Grants funding as it does not currently extend to local government payments.[90] However, the Commonwealth Treasury has recently stated that local government payments will progressively be made subject to the Intergovernmental Agreement.[91] Although payments to local government in the form of the financial assistance grant are referred to as *Local Government Specific Purpose Payments*,[92] this is not a category of payment that currently exists under the Intergovernmental Agreement.

## Intergovernmental Arrangements for Nation Building Program Construction and Maintenance

As stated, funding for road and rail construction and maintenance under the Nation Building Program is provided in the form of National Partnership Project Payments, made under National Partnership Agreements which were explicitly created under the Intergovernmental Agreement.[93] The terms and conditions of Nation Building Program construction and maintenance funding, for the period 2008-09 to 2013-14, are set out in individual National Partnership Agreements between the Commonwealth Government and each of the states and territories (see Appendix C).

Each National Partnership Agreement for Nation Building Program construction and maintenance funding is effectively a five year implementation plan which sets out the proposed funding allocations and timelines for agreed road projects contained in an attached schedule.[94] Each schedule sets out the total estimated cost, as well as the agreed funding contribution from the federal government and state or territory government, for each project (see Appendix C).

However, each of the Nation Building Program National Partnership Agreements is described as a Memoranda of Understanding which states that it is 'not a written agreement' for 'the provision of Commonwealth funding for any particular project' but is instead indicative of 'the level of funding the Commonwealth intends to provide'.[95] In addition, the Nation Building Program National Partnership Agreements:

- allow the Commonwealth to increase total project funding to a state or territory under the agreement;
- do not preclude the implementation of a 'supplementary agreement' for specific parts of the National Network;
- allow the Commonwealth to provide funding outside the terms of the agreement; and
- allow the variation of the agreement with the concurrence of both parties.[96]

Funding under the National Partnership Agreements is subject to the Intergovernmental Agreement, the *Nation Building Program (National Land Transport) Act 2009* (the Act) and the *Notes on Administration for the National Partnership Agreement on Implementation of the Nation Building Program* (Notes on Administration).[97] In the event that a National Partnership Agreement or the Notes on Administration are inconsistent with a provision in the Act, the Act prevails.[98]

A key feature of the Nation Building Program funding arrangements was the submission of state and territory bids which identified specific national network construction projects for federal funding. The states and territories submitted their bids to the Commonwealth Government during mid 2007.[99]

For example, the road and rail projects identified by the Victorian Government for priority funding under the Nation Building Program (then known as AusLink 2) were set out in *National Transport Links – Growing Victoria's Economy*.[100] The Nation Building Program National Partnership Agreement for Victoria approved a total of 15 new projects on the National Network in Victoria. See Appendix C.

The Nation Building Program National Partnership Agreements will expire on 30 June 2014.[101]

## Intergovernmental Arrangements for Other Nation Building Programs

Funding for the Black Spot Safety Program, Boom Gate Safety Program and the Heavy Vehicle Safety and Productivity Project is provided in the form of separate National Partnership Project Payments.[102] The Roads to Recovery program is not covered by the Intergovernmental Agreement as it involves the payment of federal road funding directly to individual local councils.[103]

The terms and conditions of these payments are set out in letters of offer and acceptance between the Federal Minister for Infrastructure, Transport, Regional Development and Local Government and the relevant state or territory government Minister.[104]

## Endnotes

1 Commonwealth of Australia, *Budget: Budget Strategy and Outlook, Budget Paper No. 1, 2009-10*, Canberra 2009, viewed 17 February 2010, http://www.budget.gov.au/2009-10/content/bp1/downloads/bp_1.pdf, pp. 6-7, 6-40.; Commonwealth of Australia, *Budget: Australia's Federal Relations, Budget Paper No. 3, 2009-10*, viewed 17 February 2010, http://www.budget.gov.au/2009-10/content/bp3/download/bp3.pdf, pp. 110-111.

2 Commonwealth of Australia, *Budget: Budget Strategy and Outlook, Budget Paper No. 1, 2009-10,* op. cit., pp. 6-7, 6-8.

3 Commonwealth of Australia, *Budget, Australia's Federal Relations: Budget Paper No. 3 2010-11*, Canberra 2010, viewed 26 May 2010, http://www.budget.gov.au/2010-11/content/bp3/download/bp3.pdf, p. 86.

4 Bureau of Infrastructure, Transport and Regional Economics, *Public Road-Related Expenditure and Revenue in Australia 2009*, Information Sheet 37, Canberra, 2009, p. 3.

5 ibid.

6 ibid.

7 ibid., pp. 2, 3.

8 ibid., p. 2.

9 Department of Infrastructure, Transport, Regional Development and Local Government, *Nation Building Program: Off-Network Projects*, viewed 4 February 2010, http://www.nationbuildingprogram.gov.au/publications/administration/pdf/NBP_off_network_projects_25_06_2009.pdf.

10 Australian Government, 'Part 2: Expense Measures', *Budget 2010-11*, viewed 26 May 2010, http://www.budget.gov.au/2010-11/content/bp2/html/bp2_expense-16.htm.

11 Commonwealth of Australia, *Budget, Australia's Federal Relations: Budget Paper No. 3 2010-11*, op. cit.

12 VicRoads/Department of Transport, Submission to the Inquiry, March 2010, pp. 13, 20.

13 ibid., p. 13.

14 Commonwealth of Australia, *Budget, Australia's Federal Relations: Budget Paper No. 3 2010-11*, op. cit., p. 86.

15 Commonwealth of Australia, *Budget, Australia's Federal Relations: Budget Paper No. 3 2010-11*, op. cit., p. 86.

A number of relatively small budget items have been excluded from this total because the data did not provide: a breakdown of the allocation between local and non-local roads; or a breakdown between road and rail; or determine the amount actually allocated to road infrastructure. These items are: Boom Gates for Rail Crossings; Off-network projects supplementary; Improving the national network; Heavy vehicle safety and productivity; Major cities (road); and Federation fund projects. It should also be noted that a small proportion of the funding item described as *off-network projects*, which has been included in the above total, are in fact allocated to rail.

16 ibid., pp. 86, 89, 92-93, 109.

17 Department of Infrastructure, Transport, Regional Development and Local Government, *Nation Building Program*, viewed 11 August 2010, http://www.nationbuildingprogram.gov.au/index.aspx.

[18] VicRoads/Department of Transport, op. cit., p. 15.

[19] Department of Infrastructure, Transport, Regional Development and Local Government, *Annual Report 2008-09*, Canberra, 2009, viewed 22 January 2010, http://infrastructure.gov.au/department/annual_report/2008_2009/files/DITRDLG_AR0809.pdf, p. 20.

[20] Department of Infrastructure, Transport, Regional Development and Local Government, *Nation Building Program*, op. cit.

[21] Bureau of Infrastructure, Transport and Regional Economics, op. cit., p. 1.

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Chapter

3

# Assessment of the Current Road Funding Arrangements

## Introduction

In the course of the Inquiry, the Committee received evidence that there has been significant progress in recent years in rationalising Australia's federal road funding arrangements with respect to state roads.[1] However, on the evidence provided to the Committee, the same cannot be said of the arrangements that apply to the funding of Australia's local roads.[2] The evidence provided to the Committee suggests that there is an urgent need for a significant increase in funding for Australia's local roads, particularly to councils in regions.[3]

## Vertical Fiscal Imbalance

In a federal system such as Australia, a situation of vertical fiscal imbalance is created whereby the revenue raising capacity of the three levels of government does not equal their expenditure responsibilities.[4]

The existence of vertical fiscal imbalance in Australia is a significant and long standing feature of Australian federal relations. While the Australian states are responsible for a range of government services that require considerable expenditure, they raise significantly less revenue compared to the Commonwealth.[5]

The Royal Automobile Club of Victoria (RACV) in its submission to the Inquiry, referred to the states' reliance on the federal government for road funding as a consequence of the vertical fiscal imbalance in Australia's federal system of government. The RACV submission stated that:

> The Australian constitution allocates to the States responsibility for provision of most public services, including health, education, law and order, public transport and roads. However the Commonwealth still maintains the most important revenue raising powers. The resulting imbalance between

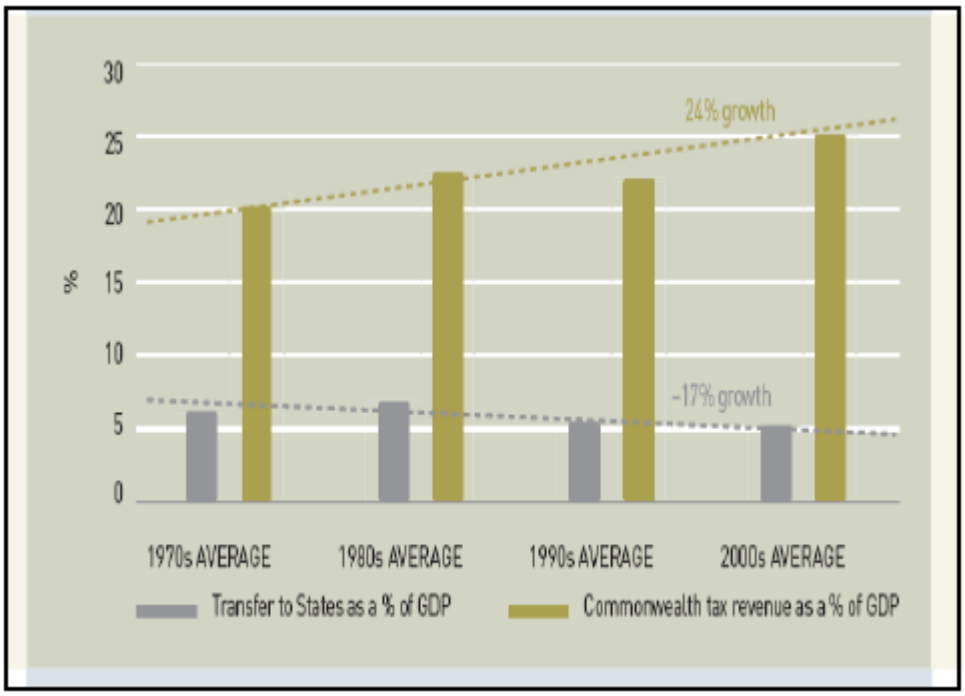
> responsibility on the one hand and access to revenue on the other (Vertical Fiscal Imbalance), means the States are heavily reliant on Commonwealth grants (both general purpose and specific purpose payments) for the provision of roads.[6]

The Victorian Government, in its submission to *Australia's Future Tax System Review* (the Tax Review) described the nature of Australia's vertical fiscal imbalance, noting that:

> A lot of tax paid in Australia is not spent by the level of government that collects it. The Commonwealth collects over 85 per cent of taxes and has access to some of the largest, broadest, and fastest-growing taxes. However, the Commonwealth is only responsible for around 57 per cent of government expenditure.
>
> State Governments are primarily responsible for school education, health care, infrastructure, police and emergency services, and a range of other areas. Spending on these services amounts to 43 per cent of all government expenditure. Despite this, States only collect 15 per cent of tax revenues.[7]

The Victorian Government submission to the Tax Review also stated that net Commonwealth payments to the states as a proportion of gross domestic product 'remain at historic lows' and that the Commonwealth-State fiscal gap has grown in recent years as shown in Figure 3.1. In other words, vertical fiscal imbalance has significantly worsened in recent decades. The Victorian Government stated that this situation has: 'left Australia with a bigger gap between revenue raising and expenditure responsibilities than most comparable federations around the world', including the United States, Germany and Canada.[8]

**Figure 3.1: Commonwealth Transfers to States and Commonwealth Taxation Revenue (% of GDP) 1970s–2000s**




Source: Victorian Government, *A Tax System that Works for Australia: Reform Options for Employment, Economic Growth and Prosperity'* – Victorian Government Submission to the Australia's Future Tax System Review, Melbourne, 2009, p. 10.

The Victorian Government further stated that the current revenue-expenditure gap is the cause of 'confused accountability, blame shifting, and inefficient churn of tax revenues between levels of government' and that it lessens the flexibility of the states to plan future investment and respond to community needs.[9]

Tax churning refers to the situation whereby a government raises revenue from taxation which it then returns to the same individuals from whom, or sectors from which, it raised the revenue. It is often used to describe Australia's welfare payments system but can apply to revenue raising and payment arrangements across the tax system.[10] In the context of Australia's road funding arrangements, it could be argued that full or partial hypothecation of fuel excise would involve less churn than the current system of multiple federal payments, which are drawn primarily from consolidated federal revenue – particularly if the hypothecated portion of fuel excise revenue was both raised and spent by the states without the need for federal government involvement.

The Victorian Government also stated that the revenue-expenditure gap:

> … reduces the flexibility for States to respond to community needs, plan future investment and respond to shocks and crises. Future cost pressures, including an ageing population and climate change, will put States in an increasingly difficult position.[11]

In its submission, the RACV also stated that such vertical fiscal imbalance causes uncertainty about Commonwealth grants of road funding to the states as well as a lack of control over such funds by the states that

> … reduces the ability of states to govern effectively – especially when facing longer-term infrastructure investment projects such as road development.[12]

The Committee notes that while the multi-year allocation of funding for road projects under the Nation Building Program National Partnership Agreements has gone some way towards addressing this, the agreements do not guarantee the total, or even annual, amount of funding identified in the agreement. As noted in Chapter Two the Agreements are only 'indicative' as to the level of funding that the federal government intends to provide to the states and territories over the period of the agreement and are subject to change.

## The Nation Building Program

### Funding Arrangements

In a joint submission to the Inquiry, VicRoads and the Department of Transport, stated that the funding arrangements under the Nation Building Program are:

> … based on better long-term planning, encouragement of the best ideas and solutions and targeting investment to achieve the best outcomes for people, the national economy, regions and communities. It is designed to ensure that Australia's national land transport system is far better placed to meet the challenges it faces.[13]

Professor Greg Martin, Executive Director, Planning and Transport Research Centre (PATREC) at a meeting in Perth, 9 April 2010, described the Nation Building Program as a 'further improvement' on previous federal road funding programs because it has introduced a systemic approach to land transport planning and

funding which has allowed a greater focus on economic efficiency.[14] Professor Martin stated that:

> The improvements are that it deals with national and inter-regional, including ports, and even the urban areas. It has now expanded where the Commonwealth is prepared to spend its road money. … the most important thing is it is talking about transport efficiency, national productivity and supply chain. It is starting to talk about a system, rather than particular links.[15]

Professor Martin also stated that there is a greater level of dialogue between the federal and state governments under the Nation Building Program than existed under previous federal road funding programs, which allows greater input from the states regarding road funding priorities.[16] Professor Martin further noted that:

> In the past the situation was the state would make an argument to the Commonwealth for funding; never knew quite what the Commonwealth was going to give; never knew whether the Commonwealth was actually going to fund what the state asked for or something else. That was a recipe I think for bad blood between both parties of government. Now, with the Commonwealth saying, 'You put up your bids and we will select from your bids where we spend the money,' that is more likely to be better, where people understand where they are.[17]

Professor Martin was also supportive of the process of using individual National Partnership Agreements between the federal government and each of the states to determine the level of federal funding for road construction and maintenance under the Nation Building Program. Moreover, he contrasted the effectiveness of these arrangements with those that existed under the former AusLink program. Professor Martin commented that:

> Another plus is there are bilateral agreements now, so both parties know what the commitment is for. Up until now the Commonwealth spent its money on what it chose to spend its money on … but the state never knew what it was going to get and where it was going to get it. In some cases the state would argue there is a higher priority somewhere else on the route than what it would have been paid for by the Feds. With the bilateral agreements there is [no] issue about whether it is full or part payment, so everyone knows where they stand.[18]

On the other hand, Mr Ian Webb, Chief Executive, Roads Australia, a national peak body for stakeholders in the road transport sector, at a public hearing in Melbourne on 22 February 2010, stated that there remains a lack of funding certainty under the new federal funding arrangements. He also stated that there is a need for greater political accountability with respect to road infrastructure

and for a more integrated federal-state approach to all road funding. Mr Webb noted that these goals could not be achieved under the existing funding arrangements due to a lack of transparency and the uncertainty associated with the annual budget processes of both federal and state governments.[19] Mr Webb stated that:

> Infrastructure in this country is funded by annual appropriations of parliaments. That may be a necessary evil, given the nature of the electoral process, but it sure does not help infrastructure.[20]

Mr Webb concluded that because federal road funding is ultimately subject to the Commonwealth Budget process there is no guarantee that previous funding commitments, such as those identified in the Nation Building Program National Partnership Agreements, will be met. Mr Webb stated that:

> … it depends on whether or not the Federal government will in fact come good on all of the things that are listed which are beyond the power of the state government. … It is a national problem, because infrastructure requires long-term planning and long-term commitment and maybe that is not consistent with the way in which we manage that nationally …[21]

Similarly, the RACV in their submission to the Inquiry, stated that under the current road funding allocation arrangements, the availability of Commonwealth road funding revenue is unpredictable from one year to the next, which 'reduces the scope for forward planning of road construction and can also significantly add to construction and planning costs'.[22]

Professor Martin, Executive Director, PATREC, acknowledged the need for greater funding certainty under the federal arrangements. He stated that road funding commitments need to be for longer terms. Professor Martin noted that:

> We need to think about our road investments in a 50-year planning context, not only a next election context. We need to think about, in supply chain terms, where are we heading, what is the job of this particular piece of road, what do we need to plan over 50 years which includes the funding over 50 years too to cope with the growth that is going to occur on that road and the wear and tear on the road. … A bigger picture view is what is really quite important. It is understandable that government decision-makers and treasuries choose where they spend their money on a much shorter time frame, but if it is against a context of a longer-term time frame I think that is where we should be aiming as a country.[23]

Professor Martin concluded that:

> We have gone on a progression historically that I think is improving the circumstances in terms of the Commonwealth's preparedness to consider the whole system.[24]

The Committee notes that the Off-Network component of the Nation Building Program currently provides some federal funding for roads outside of the National Network. However, this funding is comparatively limited. For example, under Victoria's current agreement with the federal government, Off-Network road funding totals approximately $116.7 million, compared to National Network funding of approximately $2.7 billion (comprising approximately $2.4 billion for construction and a further $300 million for road maintenance funding). See Appendix C. As with funding for the National Network, federal funding for Off-Network projects is indicative only and is allocated on a project specific basis in the same Nation Building Program National Partnership Agreements. While there is no process for periodic review of the Off-Network projects that will be funded under an Agreement, it is open to the parties to renegotiate the Agreement at any time.[25]

The Committee notes that there is already a process in place for the periodic review of the National Network. For example, the Victorian Government has previously stated that the Geelong to Mt Gambier Corridor, which also runs through the Victorian cities of Colac, Warrnambool and the port city of Portland, and which includes the rail line connecting Warrnambool to Geelong, should be included in the National Network. The Victorian Government considered that:

> This inclusion would provide a safer and more efficient link between expanding agricultural, timber and tourism industries in the resource rich south western Victoria and south eastern South Australia, including 'The Green Triangle' and the Ports of Portland and Geelong.[26]

While the Committee supports the conduct of such reviews and the addition of such economically important roads to the National Network, it considers there should be a reconsideration of the funding arrangements as they apply to all roads. In this context, the Committee is in agreement with the view expressed by Professor Martin that:

> We need strategic planning at an urban and regional level, as well as a national level, and I think this road funding efficiency consideration needs to apply at state or territory level as well as Commonwealth. Once again you have to think about the whole system and how it is working.[27]

However, Professor Martin also stated that the fact that funding under the Nation Building Program arrangements often remains 'project based' can be a disadvantage. Professor Martin explained that:

> The disadvantages are still that the investment decision is often project based. It is location based or project based rather than the best return of the investment or what is the productivity that is going to come out of that investment which I think is an objective we should be pushing for.[28]

The Committee notes that the economic investment criteria identified by Professor Martin are an important part of the infrastructure prioritisation process that has been established under Infrastructure Australia.

## Reporting Requirements

Mr Mike Cosson, Manager Project Programming, Main Roads Western Australia, at a meeting in Perth, 9 April 2010, expressed the view that the reporting requirements of the Nation Building Program National Partnership Agreements can be onerous. For example, Mr Cosson stated that some Nation Building Program projects are subject to weekly reporting requirements.[29]

Similarly, VicRoads, in a joint submission with the Department of Transport, described the current reporting requirements under the Nation Building Program National Partnership Agreements as a potential burden. The submission stated that the reporting requirements under these Program Agreements and the associated Notes on Administration are 'significantly greater than those under the previous AusLink arrangements' and that:

> This has led to much higher levels of engagement between VicRoads and the DITRDLG [Department of Infrastructure, Transport, Regional Development and Local Government] since the Nation Building Program began. While there are benefits from the high level of interaction, there is the potential for these arrangements to be disproportionately burdensome and Victoria has commenced discussions with the Federal Department about more efficient ways to meet the needs of both parties.[30]

## Funding Levels for Maintenance

The Australian Trucking Association (ATA), in its submission to the 2009-10 Commonwealth budget stated that there is a 'growing maintenance backlog' on the nation's major highways, particularly on the National Network (formerly AusLink) due to insufficient funding by the former Coalition federal government.[31] The ATA stated that:

> There is no doubt that Australia's major highways need more spending on maintenance and asset preservation. Under AusLink, the previous Government allocated $300 million per year to maintenance spending, but this figure was inadequate from the start and was not indexed to the rapidly rising cost of road construction and maintenance inputs.
>
> The effects of the growing maintenance backlog are now being felt across the highway system. For example, the pavement on 25 per cent of the AusLink Network in Queensland is now more than 30 years old. The pavement was designed to have a 20 year life, and now needs to be replaced and strengthened. The road networks in the other states all have similar problems.[32]

Similarly, Mr Chris Vardon, Chief Executive Officer, South East Australian Transport Strategy (SEATS), at the public hearing in Canberra on 17 March 2010, stated that there is currently an insufficient level of federal funding for the maintenance and upgrade of Australia's roads.[33] Mr Vardon stated:

> Industries that feed the nation, derive significant export income for the nation and provide thousands of employment opportunities, not only within the SEATS region but in Melbourne and Sydney as well as any other areas, are being underfunded in the regional areas. The asset is deteriorating.[34]

Furthermore, Mr Bob Phillips, Director, Budget and Financial Planning, Main Roads Western Australia, at a meeting in Perth, 9 April 2010, stated that Western Australia is also currently experiencing a maintenance funding shortfall for the National Network.[35]

The Committee is concerned by the evidence that there is currently an insufficient level of federal funding for road maintenance across the nation. The Committee considers that its recommendations aimed at increasing the level of federal funding for roads, if implemented, would significantly reduce the current maintenance funding shortfall.

## Infrastructure Australia

The Municipal Association of Victoria (MAV), in its submission to the Inquiry, was very supportive of the approach established under Infrastructure Australia. The MAV commented that:

> The establishment of Infrastructure Australia and the Building Australia Fund have introduced a new era of inter-governmental cooperation, with a welcome focus on national productivity and supply chain efficiency throughout the country.[36]

In a joint submission to the Inquiry, VicRoads and the Department of Transport, described the establishment of Infrastructure Australia

as a major reform to the process of transport infrastructure planning and funding. The submission stated that the establishment of this body has:

> ... for the first time, has created a mechanism for a coordinated national approach to transport planning and investment, including both road and public transport initiatives.[37]

The submission stated that the establishment of Infrastructure Australia, together with the development in 2008 of the National Transport Plan and Policy Framework, *A New Beginning*, by the National Transport Commission, has:

> ... dramatically changed the Commonwealth funding landscape and impacted on how the Australian Government invests in transport infrastructure.[38]

The submission noted that Infrastructure Australia provides 'new opportunities' for the states to seek assistance for infrastructure funding.[39]

Notably, the submission distinguished the new federal funding arrangements established under Infrastructure Australia and the Nation Building Program from those that existed under the previous AusLink program on the basis that they represent an approach to land transport funding that integrates the movement of passengers and freight across both roads and rail. VicRoads and the Department of Transport stated that, with respect to passenger movement, the former AusLink program had focused on the road network.[40]

Professor Greg Martin, Executive Director, PATREC, at a meeting in Perth on 9 April 2010, however, expressed concern regarding the efficiency of the bidding process for funds administered by Infrastructure Australia. Professor Martin noted that:

> All manner of people have put in submissions – state governments, local government, private operators, I think even community groups are putting in submissions. My concern about that is there has not been enough feedback to those people to say, 'Look, you've put in a ridiculous submission,' or, 'You've put in an under-developed submission,' or, 'It's just a shopping list.' The feedback from Infrastructure Australia I think could be better to help not waste people's time and energy in putting in submissions or helping them learn how they can put in a submission that has a better chance of succeeding. ... I am concerned about the efficiency with which they are seeking bids and whether people are wasting a lot of time in the expectation they will get money through the advice of Infrastructure Australia to the Commonwealth government which

> has no chance of getting any support. I am worried about that waste of resource and the heightened expectations that are going to be disappointed.[41]

The ACT Department of Territory and Municipal Services, in its submission to the Inquiry, also expressed some concern regarding the transparency of the federal government's funding decision-making process following the development of Infrastructure Australia's 2009 Infrastructure Priority List. The Department stated that:

> The establishment of Infrastructure Australia (IA) to assess and prioritise projects was intended to inject a level of transparency in the assessment process for infrastructure projects. The ACT had put forward a proposal for the construction of the Majura Parkway. Whilst the project was on the IA priority list, the 2009-10 Federal Budget did not provide funding for the project. Furthermore, projects not included in the priority list were funded which compromised the ACT's perception of these arrangements and the role of IA.[42]

The ACT Department of Territory and Municipal Services called for a 'clarification of the role of Infrastructure Australia in the prioritisation and funding of projects and a more proactive and holistic approach to road safety funding'.[43]

Mr Bob Phillips, Director Budget and Financial Planning, Main Roads, at the meeting, expressed the view that there is a need for greater coordination between Infrastructure Australia and the Commonwealth Government's Nation Building Program.[44]

## Discussion and Conclusion

The Committee considers that the funding arrangements under the Nation Building Program and Infrastructure Australia represent an improvement on previous arrangements. The Committee considers it is a particularly positive development that, as noted by Professor Martin, there is greater funding certainty for state governments under the Nation Building Program bilateral agreement process.[45] The Committee is also supportive of the role of Infrastructure Australia in the development of a funding priority list for nationally significant road projects.

However, the Committee considers that there is a need for clarification of the inter-relationship between Infrastructure Australia and the Nation Building Program. In addition, while the funding conditions established under the Nation Building Program National Partnership Agreements have high standards of accountability and transparency, the Committee is concerned that the reporting requirements may in some cases prove onerous.

The Committee is also concerned by the evidence that there is a maintenance backlog across the National Network due to insufficient maintenance funding over a period of years. The Committee considers that this issue should be addressed as a matter of priority in future Nation Building Program funding allocations.

## State Grants Commissions

Each of the state grants commissions has developed its own methodology for distributing financial assistance grants to local councils.[46] The Commonwealth Grants Commission allocates to the states goods and services tax revenue, part of which is the roads component.

The state grants commissions are required to distribute the local roads grants in accordance with nationally agreed distribution principles that require that, as far as practicable, funds are allocated on the basis of the relative needs of each council for roads expenditure and the preservation of its road assets. Relevant considerations in assessing the relative needs of councils include length, type and usage of roads.[47]

The state grants commissions use two main approaches for the local road needs assessment.[48]

New South Wales, Queensland, South Australia and the Northern Territory grants commissions use comparatively simple models to allocate the local road grant, based on factors such as the population of the local government area and the road length that it maintains. These approaches are apparently based on arrangements that were in place prior to 1991–92 when grants were paid to councils as tied grants.[49]

On the other hand, the commissions in Victoria and Western Australia use asset preservation models to allocate local road grants. The asset preservation model is aimed at measuring the annual cost of maintaining a council's road network. It is based on an assessment of recurrent maintenance costs, and the cost of reconstruction at the end of the road's useful life. It can also take account of additional factors, including:

- the costs associated with different types of roads (sealed, gravel and formed roads);
- the cost impact of weather, soil types and availability of materials; and
- the impact of traffic volume on the cost of maintaining roads.[50]

The Tasmanian Commission uses a combination of the above approaches. It allocates 90 per cent of funds on an asset preservation model and the remaining ten per cent of funds to bridges.[51]

The Western Australian and South Australian Commissions also allocate seven per cent and 15 per cent respectively of the local road grants, to priority local road projects on the advice of expert committees.[52]

The Committee received little evidence regarding the intra-state distribution methodology used by each of the state grants commissions. This is a likely reflection of the fact that the states are generally more concerned with the equity of their share of the national grants to local roads.

A notable exception, however, was the evidence the Committee received from the Queensland Local Government Grants Commission (QLGGC), which uses a formula that gives road length a weighting of 62.85 per cent and population a weighting of 37.15 per cent in determining the allocation to each council.[53]

Ms Lyn Sawtell, Executive Officer, Queensland Local Government Grants Commission, at a public hearing in Sydney on 16 March 2010, contrasted the QLGGC's reliance on only road length and population in calculating the local roads grant with its use of an asset preservation model (based on traffic volumes) for determining the distribution of the roads assessment component of the general purpose grant.[54] Ms Sawtell concluded that:

> … the identified road grant is based completely on road length and population. It is simplistic and I do not like it, but trying to get change amongst Queensland councils – as we have found out from a state government perspective – is very difficult.[55]

Ms Sawtell stated that although the asset preservation approach would provide a superior model for the distribution of the local roads component of the grant in Queensland, there would be significant resistance to such a change from Queensland's rural councils, since they are responsible for the greatest share of road length.[56] Ms Sawtell concluded that:

> In reality the identified road grant should be distributed that way as well … No matter who you are, no matter whether you are about road safety or about distributing road funding, you should be talking about preserving the asset in a safe manner.[57]

Mr Peter Ilee, Executive Officer, South Australian Local Government Grants Commission (SALGGC), at a public hearing in Melbourne on 12 April 2010, advised the Committee that the SALGGC is investigating the feasibility of linking the intra-state distribution of the local roads grant more closely to councils' asset management plans.[58] The Committee notes that the implementation of such an approach would bring the SALGGC into closer alignment with the distribution approach used by the Victoria Grants Commission.

The Committee further notes that although the distribution methodology used by New South Wales, Queensland, South Australia and the Northern Territory grants commissions has the benefit of simplicity, it is based on arrangements that are now nearly two decades old. Significant changes to the populations of the states and territories, as well as to their road networks, have occurred over this time. Moreover, the more sophisticated asset preservation model used by Victoria and Western Australia provides a better assessment of both the relative needs of each council for roads expenditure and its road assets preservation costs, as required by the nationally agreed distribution principles.

## States' Shares of Federal Funding for Local Roads

### Funding Allocations

As outlined in Chapter Two, each of the states receives a share of the local roads grant, which is allocated to local government through State and Territory Grants Commissions. States' shares of funding under the Roads to Recovery Program is allocated on the basis of the same formula.[59]

States' shares of the local roads grant have been fixed since the untying of local roads funding in 1991 and, as shown in Table 3.1 on page 76, there are significant variations in the shares received by each of the states and territories. Victoria's share is 20.62 per cent, which approximates its share of total national local road length (19.9 per cent) but is substantially less than its share of national population (24.8 per cent).[60]

The Commonwealth Grants Commission (CGC), in its *Report on the Review of the Interstate Distribution of the Local Roads Grant*, dated 2006, noted that:

> ... the basis for the distribution of the grants to the States prior to 1991-92 is now not known but appears to have been related to, amongst other things, State population and local road length.[61]

The Queensland Local Government Grants Commission (QLGGC) in its submission to the Inquiry, was critical of the distribution

methodology used by the CGC to allocate the local roads component of the Financial Assistance Grants between the states and territories.[62]

The QLGGC stated in its submission that 'shares are historically based and not relevant to circumstances over time'.[63] The QLGGC called for a 'more realistic' distribution methodology to be canvassed with the states and advised that reconsideration of the current methodology was of particular importance to Queensland due to its rapidly growing population.[64] The QLGCC stated that:

> Queensland receives 18.7 per cent of the funds despite having 20.03 per cent of the nation's population. It is also important to note that Queensland has one of the highest growing populations of any state in Australia which significantly impacts on infrastructure and in particular roads at a state and local level.[65]

Similarly, Mr Colin Morrison, Executive Officer, Victoria Grants Commission (VGC) at a public hearing in Melbourne, 1 March 2010, stated that:

> … the eastern states have consistently argued that population and measures of economic activity and freight carried on local roads by any sort of measure have meant that they carry a larger burden than their length of local roads would suggest.[66]

Mr Rob Spence, Chief Executive Officer, Municipal Association of Victoria (MAV) at a public hearing in Melbourne, 1 March 2010, described the problem with the local roads grant as:

> We have road funding which is basically road-length driven, but there has been no assessment of the need before the pool of funds has been created. We have a pool of funds that significantly helps councils to do a difficult task, but there is really no relationship between what the task is and the funding pool.[67]

Similarly, the QLGGC, in its submission to the Inquiry stated that:

> Definitional issues of local roads, local government owned roads and non-urban arterial roads will always be of concern to any new formulae. … there are problems in defining local roads. It is sometimes difficult to distinguish between arterial roads, non-arterial roads or simply local roads owned and maintained by local government authorities.[68]

# Commonwealth Grants Commission Review of Local Road Grants

In 2005, the Commonwealth Government requested that the Commonwealth Grants Commission (CGC) review the interstate distribution of local road grants and recommend a distribution method that assessed the relative needs of local governments for expenditure on the maintenance and preservation of local roads and bridges.[69]

The Victoria Grants Commission (VGC) in its submission to the CGC review recommended that the interstate distribution method should be changed to reflect both the length of the local roads network in each state and territory and its level of usage, since the latter is the major determinant of road maintenance requirements. The VGC recommended a new formula based on a weighted average of 20 per cent of each state and territory's share of the total national road length and 80 per cent of its share of the national population.[70] As illustrated in Table 3.1, this would have resulted in increased shares of the local roads grant for: Victoria, New South Wales, Queensland and South Australia; and decreased shares for: Western Australia; Tasmania; the Australian Capital Territory; and the Northern Territory.

**Table 3.1: Review of Interstate Distribution – Relative State and Territory Shares under Victorian Proposal**

| State/Territory | Current Share of Funding (%) | Population (%) | Road Length (%) | Proposed Share of Federal Funding (%) |
|---|---|---|---|---|
| New South Wales | 29.0 | 33.4 | 22.2 | 31.2 |
| Victoria | 20.6 | 24.7 | 19.9 | 23.7 |
| Queensland | 18.7 | 19.5 | 22.7 | 20.1 |
| Western Australia | 15.3 | 9.9 | 19.0 | 11.7 |
| South Australia | 5.5 | 7.6 | 11.6 | 8.4 |
| Tasmania | 5.3 | 2.4 | 2.2 | 2.4 |
| ACT | 3.2 | 1.6 | 0.3 | 1.2 |
| Northern Territory | 2.3 | 1.0 | 2.2 | 1.4 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 |

Source: Victorian Grants Commission, Presentation, Melbourne, 1 March 2010, Slide 13.

In 2007, the Commonwealth Government released the CGC's final report. The report found that there was a lack of reliable and comparable data on local road characteristics across the states and territories. It recommended the collection of consistent and comparable data on: local road lengths, based on a consistent

definition of local roads; bridges; local road use, and maintenance expenditure on local roads and bridges by councils in each state and territory.[71]

The CGC suggested that such improved national data would enable a further review to establish a new interstate distribution formula and a process for periodically updating state and territory shares. The CGC recommended that, in the meantime, a new interim formula should be used which would provide an approximation of the relative needs of the states and territories. The recommended interim formula was based on average expenditure on local roads maintenance per capita in urban, rural, and remote areas, as well as the population of each state and territory in each of those areas.[72] The states and territories' shares of the local roads grant under the recommended interim formula are shown in Table 3.2.

**Table 3.2: Review of Interstate Distribution – Relative State and Territory Shares under Recommended Interim Formula**

| State/Territory | Current Share (%) | Proposed Share (%) |
|---|---|---|
| New South Wales | 29.0 | 31.1 |
| Victoria | 20.6 | 22.0 |
| Queensland | 18.7 | 20.5 |
| Western Australia | 15.3 | 11.3 |
| South Australia | 5.5 | 8.8 |
| Tasmania | 5.3 | 3.3 |
| ACT | 3.2 | 1.2 |
| Northern Territory | 2.3 | 1.8 |
| TOTAL | 100.0 | 100.0 |

Source: Victorian Grants Commission, Presentation, Melbourne, 1 March 2010, Slide 14.

In its response to the report, the then Commonwealth Government stated that it did not accept the CGC's recommendation for an interim distribution formula, due to the lack of nationally consistent and comparable data on local roads. Had the interim distribution formula been adopted, it would have increased Victoria's share of the local roads grant for 2007-08 by $10.5 million.[73]

The Commonwealth Government also stated that it would not seek a further review of the shares 'due to the poor prospects of obtaining the necessary rigorous standardised data from all states'.[74] There has been no further review of the shares since that time.

The Committee notes, however, that in the future it may be possible to surmount the main obstacle to obtaining sufficiently standardised data, simply by developing a data collation method that operates independently of the states and territories.

## Concerns with Interim Measures

The Committee notes that the CGC has recently attempted to develop such a methodology, albeit for determining state-managed road lengths for the purpose of distributing the Goods and Services Tax (GST). The CGC, in its most recent five yearly review of the basis for distributing the GST between the states and territories, *Report on GST Revenue Sharing Relativities – 2010 Review,* referred to the difficulties it had previously experienced in obtaining state-managed road length data. These included obtaining data that was comparable between the states and territories. The CGC stated that:

> While it should be relatively easy to obtain measures of State road lengths, there are long-standing difficulties obtaining data that are reliable and comparable across States. The readily available data are prepared by each State's road authority which primarily prepares the data for its own purposes. The data from States are unsuitable for interstate comparisons because they are affected by differences between States in the way they classify roads, their policies on where roads will be built and their policies on the allocation of responsibility for roads between the State and local governments.[75]

The CGC also stated that its concerns about the comparability of the road length data provided by the states and territories had led to its decision to freeze the road length data at their 2004 Review levels. The CGC stated that it had subsequently engaged a consultant in 2006 to develop a reliable and comparable measure of state managed roads.[76]

The results of the GST distribution methodology, which was applied by the CGC in its 2010 Review, divided state managed roads according to the:

- length of roads in rural areas (defined as rural roads), based on a road mapping algorithm developed for the CGC;
- length of roads in remote, low population density areas (defined as local roads), based on the same road mapping algorithm; and
- population in urban areas (as a proxy for road length in the defined category of urban roads).[77]

The CGC stated that the mapped data provided:

> … a reliable, policy neutral measure of the State road task which, unlike the State reported data, apply a common classification and policy framework to the road networks in each State.[78]

The CGC further stated, however, that this approach had proven unsuccessful for urban roads, noting that:

> … attempts to map and measure the length of a consistently defined set of State managed urban roads did not produce acceptable results. The length of the mapped roads is inconsistent with other urban indicators, such as area and urban population, and the results for Sydney and Melbourne showed large and inexplicable differences in road density and lengths. Extensive amounts of extra information on traffic volumes for individual roads are required to ensure this approach produces comparable information.[79]

The Commonwealth Government subsequently announced that the changes to the distribution methodology recommended by the CGC would apply from the 2010-11 financial year onwards.[80]

## Discussion

The Committee notes that the future application of Intelligent Transport Systems (ITS) has significant potential as a source of data on traffic volumes for individual roads. Intelligent Transport Systems (ITS) refers to the application of computer and communications technologies to transport problems.[81] In addition to its potential as an evidence base for road funding decisions, ITS offers significant potential road safety benefits (see Chapter Six) as well as road pricing applications (Chapter Five).

The Committee considers that there is merit in the goal of establishing nationally consistent definitions for road types between the states and territories. On principle, there is no reason why this should be the case for the GST and not for the local roads grant. The Committee is also unaware of any reason that the road classification scheme developed by the CGC for the purposes of the GST allocation could not also apply to the local roads grant.

However, the Committee is mindful that the necessary data for the category of urban roads may not be available for some time. While the Committee therefore supports the CGC's efforts to establish nationally consistent road categories, it does not consider that its new methodology for the distribution of the GST would yet provide a superior method for the distribution of the local roads grant, though this may change should the necessary data become available in the future.

The Committee also does not support the adoption of the interim formula recommended by the CGC in 2006, primarily because this approach would effectively ignore road length data. Moreover, despite the current road classification problems, there is sufficient certainty regarding the length of local roads to include this factor in calculating the interstate distribution of the local roads grant.

Accordingly, the Committee considers that the interstate distribution method for the local roads grant recommended by the VGC in 2006 should be adopted on an interim basis. This would produce a more equitable outcome, in terms of the relative needs of the states and territories, than either the current distribution method – which has effectively been frozen since 1991 – or the interim approach recommended by the CGC in 2006. The VGC methodology also has the advantage of simplicity compared to the interim methodology suggested by the CGC.

In the longer term, if the new road classification system developed by the CGC in its 2010 review for the GST becomes established and nationally accepted, and if the identified data gaps on urban road usage are addressed – for example through the application of ITS – it may then be appropriate for a further reconsideration of the allocation method.

For the time being, the Committee considers that the allocation methodology recommended by the Victoria Grants Commission represents the simplest and fairest means of allocating the local roads grant and, subject to the agreement of the Council of Australian Governments (COAG), should be adopted as soon as possible.

As noted above, the states' shares of funding under the Roads to Recovery Program are allocated on the basis of the same formula used for the allocation of the local roads grant. The current inequity in the allocation of federal funding for local roads therefore applies to funding delivered under both the local roads grant and the Roads to Recovery Program. Accordingly, the Committee considers that the process for determining the states' shares of funding under the Roads to Recovery Program should be reformed on the same basis as that recommended for the local roads grant.

**Recommendations:**

1. **That the Minister for Roads and Ports, through the Council for Australian Governments, advocate a change in the local roads grant allocation methodology. That the local roads grant should be allocated according to a weighted average of 20 per cent for each state and territory's share of the total national local roads length and 80 per cent for its share of the national population.**

**This change should also apply to allocations under the Roads to Recovery Program.**

2. **That the Minister for Roads and Ports, through the Council for Australian Governments, advocate to develop a nationally consistent road classification system based on nationally consistent data. The application of Intelligent Transport Systems in obtaining such necessary data should also be encouraged.**

## The Level of Federal Funding for Local Roads

Mr Adrian Beresford-Wylie, Chief Executive, Australian Local Government Association (ALGA), at a public hearing in Melbourne on 12 April 2010, described the importance of local roads to economic efficiency. He stated that:

> One of the things that is evident is that investments in roads at local levels bring benefits to the nation as a whole. They produce productive outcomes, and if the Australian economy grows and benefits from these productive investments, that money is not captured at the local level by local communities. It is usually captured at the Australian government level.[82]

However, Mr Beresford-Wylie stated that there is a national shortfall in the funding available to local councils for the maintenance of local roads. He noted that although the exact size of the national shortfall is currently unknown, it was estimated at approximately $600 million in 2005-06.[83]

In June 2002, the Victorian Auditor-General, in the report *Management of Roads by Local Government*, estimated that the difference between the actual and required level of spending by local councils on infrastructure asset renewal and maintenance (of which roads comprise more than half of total assets) was between $1.4 billion and $2.75 billion.[84] Although the report did not state the time period over which this gap existed, it noted that a 1998 study by the Victorian Department of Infrastructure had estimated that 'this gap' was $1.17 billion for the five year period to 2002.[85]

The Municipal Association of Victoria (MAV) also stated that the majority of the local roads infrastructure renewal gap in Victoria is experienced by small rural councils which have very limited capacity to increase their own source revenue, such as rate increases or user charges.[86]

Similarly, Mr Beresford-Wylie stated that the road funding shortfall is a particular problem in rural and regional councils.[87] He noted that, in contrast to councils in metropolitan areas, rural and regional councils have much smaller revenue bases and that many are

financially dependent on the Commonwealth Government for approximately 50 per cent of their total revenue.[88]

Mr Rob Spence, Chief Executive Officer, Municipal Association of Victoria, at a public hearing in Melbourne on 1 March 2010, also stated that the road funding situation had become acute for a number of Victoria's smaller rural and regional councils.[89] He noted that this is particularly the case for councils situated in the urban-rural interface and in regional areas which commonly have small and distributed populations, substantial road length and areas of state forest or national park.[90] Mr Spence stated that:

> … there are 18 to 20 councils in Victoria that are currently endangered species. The capacity to keep going with declining populations, struggling economies and massive road length is problematic, and there needs to be a solution to it.[91]

The national nature of the problem was highlighted in the submission provided by the Australian Trucking Association, which noted that:

> ... there is still a substantial maintenance backlog on local roads in regional areas, despite the Roads to Recovery Program. In fact, some regional councils are planning on downgrading bitumen roads to gravel roads, and downgrading less-used gravel roads to naturally formed roads.[92]

Mr Beresford-Wylie, ALGA, also identified an ongoing decline in the level of federal road funding, relative to the increasing road expenditure costs faced by local councils, as a significant reason for the local government road funding shortfall. He noted that in recent years federal funding for local roads across Australia has not increased at the same rate as the costs of maintaining them and that local government does not have the resources to cover the shortfall. He also identified the current arrangements for determining the levels of funding under the local roads grant and the Roads to Recovery Program as key reasons for this relative decline in federal road funding.[93]

In the case of the local roads grant, Mr Beresford-Wylie stated that while councils face annual road construction cost increases of approximately seven to eight per cent, the escalation factor applied to the local roads grant – which is used to calculate annual increases in the grant on the basis of CPI and population increases – generally averages only 3.5 to four per cent.[94]

In the case of the Roads to Recovery Program, Mr Beresford-Wylie noted that funding is not indexed. He stated that although ALGA welcomed the recent increase in annual funding from $300 million a year to $350 million a year, without indexation it is 'inevitable' that

these arrangements will also contribute to the growing funding gap.[95]

Mr Beresford-Wylie identified two additional reasons for the national shortfall in local government road funding: a decline in total federal funding to local government measured as a proportion of federal tax revenue; and an increase in cost-shifting from state governments to local government.[96]

In relation to the former, Mr Beresford-Wylie noted that since the mid-1990s total federal financial assistance grants to local government had declined from approximately one per cent of federal tax revenue to 0.7 per cent, or by nearly one-third.[97] In relation to cost shifting – which involves transferring the responsibility for providing a particular service without also transferring the necessary funding – he stated that this had occurred across various sectors, including road funding.[98] Notably, Mr Beresford-Wylie identified the worsening vertical fiscal imbalance between the Commonwealth Government and the states as a major cause of such cost shifting. Mr Beresford-Wylie stated that:

> … state governments are under immense financial pressure. … I often have debates with my state colleagues in their treasuries about the fact that state government resources from the commonwealth have also declined dramatically and that they are also facing enormous costs in terms of health and education in particular, the infrastructure costs they are faced with, and as a consequence there have been decisions made by state governments across all jurisdictions to draw back from expenditures in local communities, and local governments are picking up those costs.[99]

Mr Beresford-Wylie stated that the road funding shortfall experienced by local government could be ameliorated by indexing both the local roads grant and Roads to Recovery funding to increases in the costs of road maintenance.[100]

Similarly, Mr Spence suggested that the Commonwealth should give greater consideration to the escalators that it uses in calculating the local roads grant generally as well as giving greater weight to road use and economic activity in calculating the roads component of the Financial Assistance Grants rather than effectively relying solely on road length.[101]

Mr Spence also stated that a failing of the Financial Assistance Grants system of funding, which has prevailed since its establishment in the 1970s, is that it does not account for a council's actual level of need.[102] Mr Spence commented that:

> … across the board there has been no consideration of what the need is relative to the grant. … All it is is, 'We will give you this and we will escalate it by CPI over time. If that is better than you should have got, then fantastic; but if it is less, stiff'. … In metropolitan Melbourne it is not an issue because they have got horsepower – you have got councils like Port Phillip where I think they are doing about $30 million in parking and parking fines. For Towong that is four years budget or three years budget.[103]

The Committee considers that there is a need to index the local roads grant to reflect increases in the costs of road maintenance as opposed to the CPI. The Committee also considers that such indexation should also be introduced for Roads to Recovery funding. In the absence of such indexation, there is currently no connection between either of these payments and the road funding needs of Australia's local councils. Moreover, there is strong evidence that the failure to index these payments to reflect increases in the costs of construction has significantly contributed to the growing national shortfall in funding for the maintenance and renewal of local roads.

**Recommendation:**

**3. That the Minister for Roads and Ports, together with the Minister for Finance, advocate through the Council of Australian Governments changes to the local roads grant and the Roads to Recovery Program to ensure the indexation of both payments to reflect actual costs.**

The Committee considers it is unlikely that indexation of the local roads grant and Roads to Recovery payments as recommended above, will be sufficient to redress the current funding shortfall experienced by local councils, given both its magnitude and the fact that it has accumulated over many years. The Committee therefore considers that there should be a significant increase in federal funding for local roads. In the immediate future, such an increase could be made through the Roads to Recovery Program. As funding under this program is tied, it effectively guarantees that it will be spent on roads.

However, the Committee also received evidence that the requirement that local councils must match the amount of federal funding they receive under the Roads to Recovery Program can place smaller councils, particularly rural and regional councils, at a disadvantage as they generally have less capacity to raise the necessary own source revenue to meet the matching requirement. For example, Ms Sawtell, at the public hearing, stated that this can lead to indigenous and rural councils in Queensland receiving less funding under the Roads to Recovery Program than they would in the absence of the matching requirement.[104]

The Committee therefore considers that the matching requirement for the receipt of federal funding under the Roads to Recovery Program should be abolished for smaller councils, particularly those in rural, regional and remote areas. This reform aligns with the Committee's view that there should be a significant increase in funding to local councils under the Roads to Recovery Program.

**Recommendation:**

**4. That the Minister for Roads and Ports, together with the Minister for Finance, through the Council of Australian Governments advocate that federal funding for the backlog of maintenance and construction on local roads be increased under the Roads to Recovery program.**

**(a) The increase in funds should be adequate to redress the backlog of maintenance and construction, particularly in the regional and rural areas and interface councils.**

**(b) The existing requirement that councils must match the amount of funding received under the Roads to Recovery Program should be abolished for councils where rate bases do not allow matching contributions.**

## Alternatives to the Current Arrangements

Mr Adrian Beresford-Wylie, Chief Executive, ALGA, at the public hearing in Melbourne 12 April 2010, suggested that one solution to the funding shortfall for local roads is to provide local government with a guaranteed share of federal government revenue. He referred to the payment of GST revenue to the states as a possible model. Mr Beresford-Wylie stated:

> In terms of the funding that is provided by the Australian government, local government has long sought a transfer of funds, which is the equivalent in a sense of the GST – not part of the GST, but the equivalent of the GST – on the basis that, as I have said, people expect services to be provided at a local level, …[105]

The Committee notes that this suggestion amounts to a call for a tax base sharing arrangement between federal and local government. As the Committee discusses in Chapter Four, there is a need over the longer term for the establishment of a tax base sharing arrangement between federal and state governments. The Committee is of the view that this would represent the best option for reducing the vertical fiscal imbalance inherent in Australia's

system of government, which is a primary cause of the road funding shortfall for both local and state roads.

While the Committee is mindful of the democratic importance of local government, it is equally aware of the constitutional reality that councils are instrumentalities of state government. In the absence of constitutional reform, a tax base sharing arrangement between federal and state government therefore represents a preferable means of addressing the road funding shortfall experienced by state governments and local councils. The Committee considers that the establishment of an appropriate tax base sharing arrangement would enable state governments to both reduce the incidence of cost shifting to local government and to substantially increase their funding to local government for the maintenance and renewal of local roads.

Moreover, the recent High Court decision of *Pape v Commissioner of Taxation* [2009] HCA 23 (7 July 2009) (*Pape*) illustrates that there is significant uncertainty as to the constitutional validity of direct federal government payments to local government, such as payments under the Roads to Recovery program.[106]

In *Pape*, Mr Brian Pape challenged the legal validity of the $900 Single Income Family Bonus payment paid by the Commonwealth Government to individuals under the Economic Stimulus Plan in 2009. In making the payments, the Commonwealth Government had relied on an interpretation of the Constitution that it has an 'executive power' to provide funding for matters of 'national importance' for which it otherwise has no specific funding powers.[107] Although the High Court upheld the validity of the payment on the basis that the executive power extended to actions aimed at responding to the global financial crisis (the reason for the payment), it also found that the executive power was significantly narrower than had been previously thought.[108]

Mr Beresford-Wylie stated that ALGA had obtained advice from a barrister, on the implications of the decision for local government, who had advised that the High Court's interpretation of the executive power in *Pape*:

> … means that the Roads to Recovery funding probably is able to be challenged and a variety of other funding mechanisms from the commonwealth to third parties would also be challenged.[109]

In other words, although the High Court has not yet had to consider the particular issue, it is possible, and perhaps likely, that it would find that the Commonwealth Government has no power to provide road funding directly to local government. The Committee notes that such a finding would be consistent with the constitutional reality that

local government is ultimately the responsibility of the states and territories.[110]

The Committee is unaware of any reason why, should the High Court rule in the future that the Roads to Recovery Program is constitutionally invalid, the program could not, for all intents and purposes, be administered by the states. This is consistent with the legal advice provided by Mr George Williams, barrister, to ALGA on the *Pape* decision. Mr Williams stated that:

> Many future Commonwealth payments to local government may need to be made as Specific Purpose Payments via the States under section 96 of the Constitution.[111]

Mr Williams advised that an alternative solution would be to amend section 96 of the Constitution to give Commonwealth Government the specific power to directly fund local government.[112]

However, the Committee notes that such an approach would depend on the success of a constitutional referendum and would do nothing to redress the degree of vertical fiscal imbalance inherent in Australia's system of government and the consequent funding shortfall for local roads. In the longer term, the Committee considers that it would be preferable to address the problem of vertical fiscal imbalance through the introduction of a tax base sharing arrangement between the Commonwealth Government and the states.

Moreover, the Committee considers that the harmonisation of federal funding for local roads with Australia's existing constitutional arrangements could be coupled with a review of the current 'hierarchy' of roads. As Professor Greg Martin, Executive Director, Planning and Transport Research Centre (PATREC), explained at a meeting in Perth, 9 April 2010, such a review would be valuable as a basis for improving the economic efficiency of Australia's roads, particularly with respect to freight carriage by heavy vehicles. Professor Martin stated that:

> If we are going to have a network of high productivity vehicles which we are promoting on the basis of lower costs and better use of the road network and less vehicles on the road from a road safety point of view…then the question is, do we have the right hierarchy of roads at the present time or should that be revisited? … I know there are issues about B-doubles … local government might not like this idea but … [i]t might be better to have those roads looked after in a bigger pool by the state road authority.[113]

The Committee also considers that in the event that vertical fiscal imbalance is addressed, it should be incumbent on state

governments to reduce the incidence of cost shifting to local government and to substantially increase their funding to local government for the maintenance and renewal of local roads.

State governments should also collaborate with local government – preferably through COAG or the National Transport Commission to ensure national consistency – in a review of the existing 'hierarchy' of state and local roads, with the object of identifying, and possibly reclassifying, local roads of high economic importance, which should be funded by the states. The Committee also considers that the likely increase in state funding that would be required as a result of such a review should be provided through increased federal funding to the states, whether through a future tax base sharing arrangement or other arrangements.

## Australia's Future Tax System Review

The 2009 final report of Australia's Future Tax System Review, *Report to the Treasurer, Part Two: Detailed Analysis, Volume 2,* (the Tax Report) also identified the need for reform of Australia's existing administrative arrangements for the provision of road infrastructure. The report stated that although roads have historically been provided by government departments and local governments, and funded from general tax revenue:

> These institutional structures may no longer be suitable to meet 21st century challenges.[114]

Further that:

> Outmoded institutions and a lack of coordination in the construction and maintenance of the road network has meant that different road agencies have had limited incentives to improve the national road network as a whole. Current arrangements give limited scope to finance additional road capacity in the face of congestion, or to build roads more resilient to heavy vehicles.[115]

The report went on to find that the current administrative arrangements are not designed to promote efficient road pricing or efficient investment and operation of roads and suggested that a possible future solution to this situation would be to:

> … shift road infrastructure delivery into the public trading enterprise sector rather than the budget-funded general government sector.[116]

The report noted that such a reform would also remove the need for the current fiscal equalisation processes undertaken by grants commissions.[117]

The report also found that there should be a new *National Road Transport Agreement*, through COAG, in order to implement a range of reforms, including 'a reduction of Australian government fuel tax as efficient road pricing is introduced'.[118]

The report recommended that:

> COAG should develop a National Road Transport Agreement to establish objectives, outcomes, outputs and incentives to guide governments in the use and supply of road infrastructure. COAG should nominate a single institution to lead road tax reform, and ensure implementation of this agreement.[119]

## A Regional Approach to Local Roads Funding

Professor Greg Martin, Executive Director, PATREC, at a meeting with the Committee in Perth on 9 April 2010, stated that there is a need for a greater regional focus with respect to Commonwealth funding for local roads. Professor Martin described the system of state government road funding for local governments that operates in Western Australia as a possible model.[120] Professor Martin stated that:

> A number of zones have been set up right around the state – remote, regional and urban – where groups of councils have been brought together as regional road groups. There is an agreement between the state and the Local Government Association for a proportion of state road funding to go to local government. The allocation is made to the group, not to individual councils, the notion being that the group of councils have a committee comprising elected members, and the elected members make a decision about the allocation of that money within the group of councils[121]

Professor Martin further noted that:

> The local governments are in charge of it but they are collaborating in making those decisions.[122]

Similarly, Ms Lyn Sawtell, Executive Officer Queensland, Local Government Grants Commission (QLGGC) also identified greater cooperation between state and local government as the key to establishing a regional approach to local roads funding. Ms Sawtell cited the Roads Alliance model established in Queensland, set up by the Department of Main Roads which works with a group of local

councils on road funding issues. Ms Sawtell stated that the Roads Alliance model had gained national recognition.[123]

Ms Sawtell also stated that the QLGGC was aware of deficiencies with the road asset management outcomes methodology undertaken by some Queensland local councils which could be improved through greater cooperation between the state and local government. Ms Sawtell stated that the results of recent local council audits by the QLGGC had revealed that:

> … councils do not have much of a capacity for understanding the asset management they need around their roads. They do not understand how to use road counters in an effective way not only to be able to provide the data that we need but also to be able to influence an asset management plan.[124]

Ms Sawtell concluded that:

> I think there needs to be greater cooperation between state government and local government so we can understand that whole asset management and where we need to put the funds and how we need to better build the road infrastructure.[125]

The Committee also notes that the Victorian Government has recently introduced a new framework for long-term regional planning. The July 2010 plan, *Ready for Tomorrow – A Blueprint for Regional and Rural Victoria*, includes a process for the development of 'Regional Strategic Plans' by Regional Strategic Planning Committees in each of the five Victorian Government administrative regions. In Hume and Gippsland, plans are developed at the regional level, while there are two sub-regional plans each in Barwon South West, Grampians and Loddon Mallee. Regions will seek state government support, funding or partnering to implement initiatives identified in the Regional Strategic Plans.[126]

The Committee considers that the regional approach to road building and maintenance that is emerging in states such as Victoria, Western Australia and Queensland will be key to improving the road infrastructure of Australia's local roads in the future.

## Recommendations

1. **That the Minister for Roads and Ports, through the Council for Australian Governments, advocate a change in the local roads grant allocation methodology. That the local roads grant should be allocated according to a weighted average of 20 per cent for each state and territory's share of the total national local roads length**

**and 80 per cent for its share of the national population. This change should also apply to allocations under the Roads to Recovery Program.**

2. **That the Minister for Roads and Ports, through the Council for Australian Governments, advocate to develop a nationally consistent road classification system based on nationally consistent data. The application of Intelligent Transport Systems in obtaining such necessary data should also be encouraged.**

3. **That the Minister for Roads and Ports, together with the Minister for Finance, advocate through the Council of Australian Governments changes to the local roads grant and the Roads to Recovery Program to ensure the indexation of both payments to reflect actual costs.**

4. **That the Minister for Roads and Ports, together with the Minister for Finance, through the Council of Australian Governments advocate that federal funding for the backlog of maintenance and construction on local roads be increased under the Roads to Recovery program.**

   **(a) The increase in funds should be adequate to redress the backlog of maintenance and construction, particularly in the regional and rural areas and interface councils.**

   **(b) The existing requirement that councils must match the amount of funding received under the Roads to Recovery Program should be abolished for councils where rate bases do not allow matching contributions.**

## Endnotes

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Chapter

4

# Sources of Road Funding

## Introduction

In this chapter the Committee considers the current sources of revenue for road funding and possible changes to the current arrangements, and the way in which road funding revenue is raised by governments. Private sector road funding is also considered.

The primary focus in this chapter is on revenue from taxes and charges on motor vehicle transport and on federal fuel excise in particular. However, consideration is also given to other taxes and charges, particularly to income tax and the Goods and Services Tax (GST). There are two reasons for including a consideration of GST.

First, the vast majority of funding for road infrastructure in Australia is derived from the consolidated revenue of the Commonwealth, state and local governments. Accordingly, there is no hypothecation of the revenue from federal and state motor vehicle taxes and charges to roads. Hypothecation refers to an amount earmarked or an allocation of revenue raised for a particular expenditure, for example, as in roads.

Second, as highlighted in the recently released report into tax review, *Australia's Future Tax System, Report to the Treasurer – Part Two: Detailed Analysis,* the future possibility of far-reaching changes to Australia's existing tax system to address the challenges of vertical fiscal imbalance – such as tax base sharing arrangements - could have significant implications for both existing and future sources of road funding revenue and levels of road funding.[1]

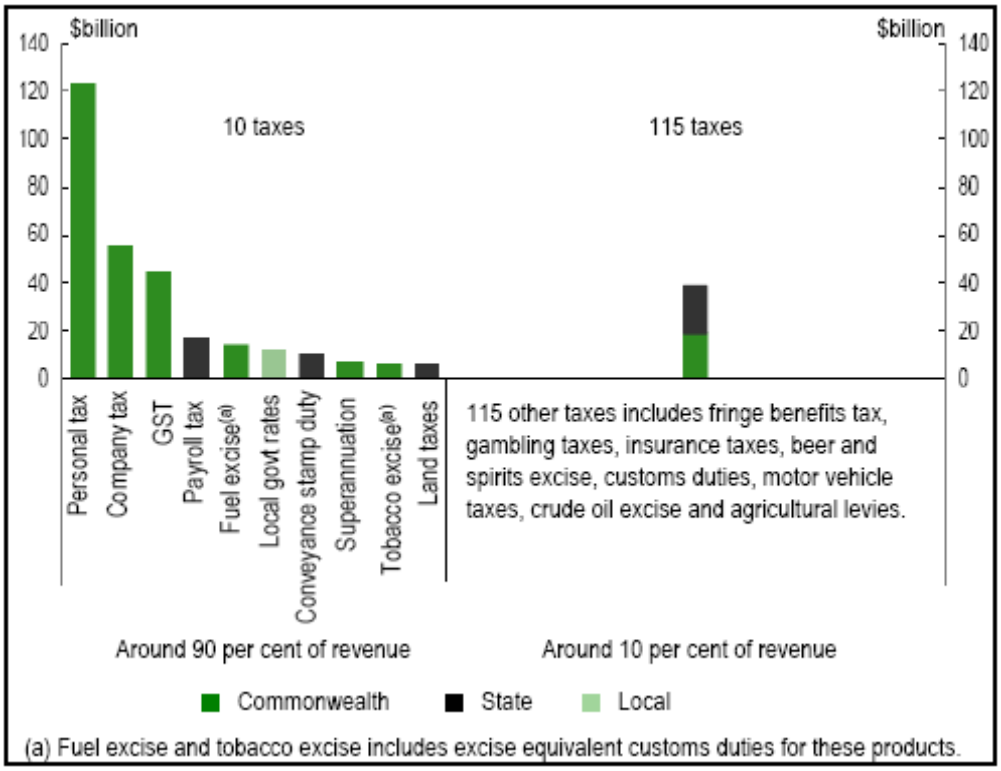
## Current Road Funding Revenue Sources

Figure 4.1 shows the ranking of Australian taxes by revenue, for the year 2009-10, and by level of government. Major federal taxes include personal income tax, company tax and fuel excise. Major sources of revenue for the states include the Goods and Services Tax (GST) – which is collected by the Commonwealth Government

and distributed to the states – payroll taxes and stamp duties on conveyances.

Local governments primarily raise revenue through local government rates and parking fines. In metropolitan and provincial cities, local governments have a greater capacity to raise revenue through service provision, such as parking fees and fines.

**Figure 4.1: Ranking of Australian Taxes by Revenue in 2009–10**




Source: Commonwealth of Australia, *Australia's Future Tax System, Report to the Treasurer, Part One - Overview*, Canberra, 2009, p. 12.

As can be seen from the figure above, 90 per cent of revenue is derived from ten of 125 taxes.

In addition to revenue from fuel excise on petrol and diesel, other federal taxes and charges on motor transport include the import tariff on passenger motor vehicles, the luxury car tax and fringe benefits tax, see Table 4.1.

Fuel Excise is a significantly greater source of revenue than any of the other taxes or charges on motor vehicle transport. It is also the fifth largest individual source of revenue for the Commonwealth Government, although its importance has declined over time compared to income taxation and the GST. This decline is partly due to the fact that indexation of excise ceased from March 2001.[2]

As shown in Table 4.1, taxes and charges connected with the road sector are a significant source of federal and state government

revenue, with federal fuel excise raising approximately $13.6 billion in revenue in 2007-08 and state taxes and duties raising approximately $6.1 billion in 2006-07.

**Table 4.1: Federal and State Revenue from Taxes and Charges on Motor Transport**

| Tax | Revenue $m |
|---|---|
| Federal (2007 – 2008) | |
| Fuel Excise on Petrol and Diesel | 13,633 |
| Import Tariff on Passenger Motor Vehicles | 1,400 |
| Luxury Car Tax | 464 |
| FBT | < 3,796 |
| Total | 19,293 |
| State (2006 – 2007) | |
| Motor Vehicle Registration Duty on Transfer | 1,989.7 |
| Annual Motor Vehicle Registration Fees and Taxes | 3,806 |
| Surcharges and Levies on Compulsory Third Party Insurance | 222.6 |
| Other (not including Drivers Licence fees) | 64 |
| Total | 6,082.3 |

Source: H Clarke and D Prentice, *A Conceptual Framework for the Reform of Taxes Related to Roads and Transport*, School of Economics and Finance, La Trobe University, Canberra, June 2009, pp. 13, 29.

Traffic infringement fines provide an additional source of revenue for states and territories. In Victoria, traffic infringement revenue comprising both camera and on the spot fines, totalled $381.4 million in 2008-09 and is estimated to total $437.2 million and $476.8 million in 2009-10 and 2010-11 respectively.[3]

## Economic Efficiency and Equity of Current Revenue Sources

A 2009 report, released under the Australia's Future Tax System Review by the Commonwealth Treasury, *Report to the Treasurer – Part One Overview*, was critical of Australia's current taxation system and recommended a significant rationalisation of existing taxes and charges, including federal fuel excise and state taxes and charges on motor vehicle use. The report stated that:

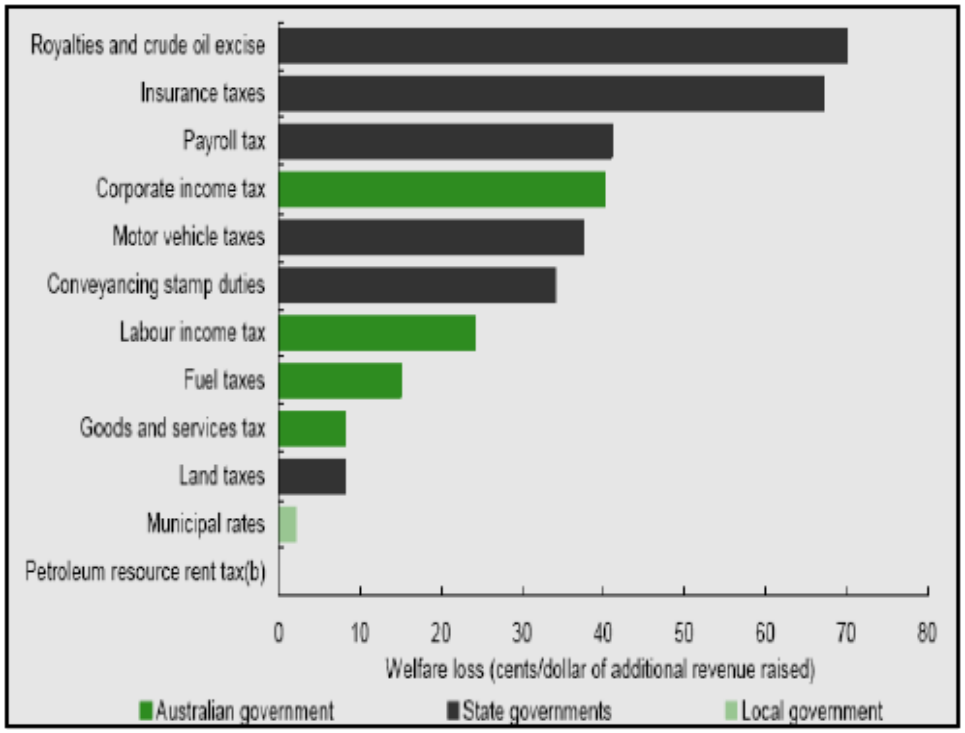
> Australia has too many taxes and too many complicated ways of delivering multiple policy objectives through the tax system. … To a large extent this is a reflection of a compartmentalised and incremental approach to tax policy that has been weighted toward achieving finely calibrated equity and efficiency outcomes at the expense of simplicity.[4]

Further that:

> Many taxes detract from the overall efficiency of the system … with many of the least efficient taxes being levied by the States. Years of incremental policy change have eroded the bases of even potentially efficient taxes. …
>
> Improving the structure of the tax system, by replacing inefficient taxes with a rationalised suite of taxes and streamlining administration, has the potential to increase government accountability, reduce system complexity and business compliance costs, and make the Australian economy more productive.[5]

The report referred to the principle of economics that the majority of taxes cause some decline in economic efficiency. For example, a tax may lessen incentives for individuals to work or invest or may produce changes in their consumption patterns. This can result in a decline in 'consumer welfare'. When this loss is expressed relative to the amount of revenue raised by a given tax, it is known as the 'marginal welfare loss'. Since the aim of an economically efficient tax system is to ensure that taxes result in relatively low levels of marginal welfare losses, taxes with higher marginal welfare losses are generally regarded as being less economically efficient.[6] This relationship is demonstrated in Figure 4.2, which compares the marginal welfare loss due to a small, five per cent increase, in a range of Australian taxes.[7]

**Figure 4.2: Marginal Welfare Loss from a Small Increase in Selected Australian Taxes**




Source: Commonwealth of Australia, *Australia's Future Tax System, Report to the Treasurer, Part One – Overview*, Canberra, 2009, p. 13.

While Figure 4.2 provides an indication of the economic efficiency of a range of existing taxes, the results should be regarded as indicative due to limitations in the way taxes and the economy are represented.[8] However, it is notable that the estimated welfare losses for municipal rates and land tax are lower than, or similar to, those of the GST, and significantly lower than for personal income tax and company income tax. It is also notable that the marginal welfare loss for state motor vehicle taxes – and for the other state taxes on payroll, insurance and royalties and crude oil excise – is significantly higher than for federal fuel taxes, of which fuel excise is the main component. In terms of welfare losses, fuel excise is therefore a relatively economically efficient tax. In other words, fuel excise – and increases in fuel excise – is less likely to lessen incentives for individuals to work or invest, or to distort their consumption patterns, than a range of other taxes, including state motor vehicle taxes.

It is important to note, however, that the economic efficiency of a given tax or charge is not determined solely by the magnitude of the welfare losses that it imposes. Another tenet of economics is that the more closely targeted the price of a particular activity to the social costs that it imposes, the better the resulting allocation of resources.[9] Conversely, if the price – or in this context, the tax or charge – associated with an activity is not closely connected to the costs that it imposes on society, it is more likely to be economically inefficient in the sense that it will not optimise the allocation of resources. In other words, it will have a low level of allocative economic efficiency as defined in Chapter One.

This is a common criticism of fuel excise, which, despite imposing relatively low marginal welfare losses, as shown in Figure 4.2 above, is often described as a ‘blunt’ tax because it has a very limited capacity to address the social costs of vehicle use, such as congestion, road damage, pollution and crashes.[10]

As noted in Chapter One, the Committee has interpreted equity in the terms of reference as including the concept of fairness in the relative road funding burden that should be borne by each level of government. That is, the relative road funding burden for federal, state and local government should reflect their road funding capacity from own source revenue and from revenue transfers from other levels of government.

As the Committee noted in Chapter One, while it is of the view that fairness should be a guiding principle in determining the share of the road funding task for federal, state and local governments, this has largely been prevented by the problem of vertical fiscal imbalance and the insufficiency of the current funding in offsetting that imbalance.

Changing the sources of road funding revenue, coupled with changes to the allocation of road funding revenue between Australia's three levels of government, could therefore do much to address the problem of vertical fiscal imbalance and the inequity of the current road funding arrangements, particularly for local governments. One such change which the Committee considers could significantly improve the equity of the current road funding arrangements, in the short to medium term, is the option of hypothecating a proportion of federal fuel excise revenue to road expenditure.

The May 2010 release of the tax review, *Australia's Future Tax System, Report to the Treasurer, Part One - Overview*, also found that governments should raise revenue in a way that enhances horizontal, vertical and intergenerational equity.[11] While horizontal equity was a major focus of the previous chapter, this chapter focuses on possible measures for improving vertical equity, particularly as it impacts on Australia's road funding arrangements.

## Federal Sources of Revenue

### Fuel Excise

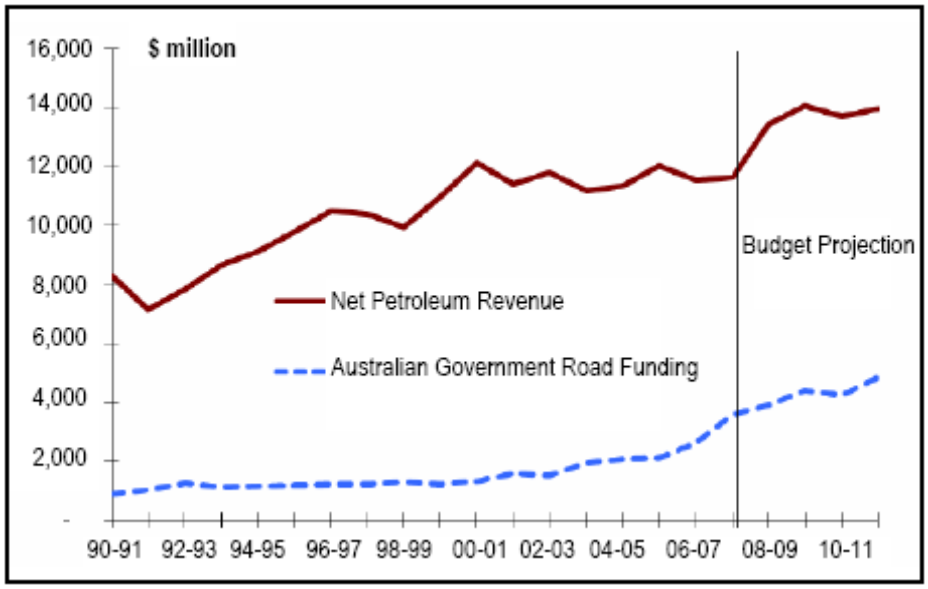
Federal fuel excise is the single largest source of revenue derived from motor vehicle transport (see Table 4.1 and Figure 4.1 above). Federal fuel excise is regarded as a potential source of additional road funding which could be delivered through revenue hypothecation (also known as 'earmarking') to road infrastructure.[12] The economic efficiency and equity of fuel tax is also a continuing subject of debate.

In 1985, the then Bureau of Transport Economics (BTE) published a review of road funding arrangements in Australia and overseas which found that Australia's road funding arrangements promote neither economic efficiency nor equity, primarily because of the nation's 'heavy reliance' on fuel excise to collect revenue from road users.[13]

In its submission to the Commonwealth Government for the 2009-10 budget, the NRMA cited analysis it had commissioned from Access Economics which found that while fuel excise would generate net revenues of approximately $15.1 billion in 2008-09, the projected total for road funding over the same period, at $3.9 billion, would be approximately only one-quarter of that amount.[14] The NRMA noted that this is equivalent to a return of approximately 9.8 cents of the 38.1 cents per litre that motorists pay in fuel excise.[15]

Figure 4.3 shows federal government net petrol revenue compared to federal government road funding, measured in billions of dollars, for the years 1990-91 to 2010-11.

**Figure 4.3: Australian Government Petroleum Revenue versus Road Funding**




Source: NRMA Motoring & Services, *2009-10 Budget Submission to the Australian Government*, Sydney, 2009, p. 11.

In its 2002 report to the Treasurer, the Fuel Taxation Inquiry Committee noted that fuel taxation had been used as a general source of federal government revenue, as opposed to a specific pool of funds for road funding, for over 40 years.[16] The Fuel Taxation Inquiry Committee concluded that fuel excise had three broad objectives:

- addressing the costs associated with fuel use (including environmental costs, and the costs of damage to the road network by motorists);
- revenue raising for the provision of general government services; and
- wider industry and social goals (such as regional development, assistance to industry and energy security through diversification of fuel sources).[17]

The 2008 consultation paper, *Australia's Future Tax System – Consultation Paper,* noted that the Commonwealth Government had previously hypothecated part of the revenue from fuel excise to provide the states with grants for road construction and maintenance.[18] However, this ceased with the introduction of the Goods and Services Tax in 2000-01 – capital expenditure on road

infrastructure in Australia is now generally funded from general tax revenue.[19]

## Australia's Future Tax System Review

The review to examine Australia's tax and transfer system, including state taxes, commenced in 2008.[20] The final reports were publicly released on 2 May 2010, and contain 138 recommendations including a number that have potentially far-reaching implications for the long-term future of fuel tax and, over the medium-term, for the issue of fuel tax hypothecation.[21]

One such recommendation, number 65, proposes that:

> Revenue from fuel tax imposed for general government purposes should be replaced over time with revenue from more efficient broad-based taxes. If a decision were made to recover costs of roads from road users through fuel tax, it should be linked to the cost of efficiently financing the road network, less costs that can be charged directly to road users or collected through a network access charge. Fuel tax should apply to all fuels used in road transport on the basis of energy content, and be indexed to the CPI. Heavy vehicles should be exempt from fuel tax and the network access component of registration fees if full replacement charges are introduced.[22]

On releasing these reports the Commonwealth Government announced that the recommendations were part of a ten year implementation agenda, though it also stated that there were a number of recommendations that did not meet with their policies and would not be implemented at any stage. While recommendation 65 was not ruled out, the government rejected that section of the recommendation which called for fuel tax to be indexed to the CPI.[23]

Part two of the final report stated that the phasing out of a fuel tax as a source of general government revenue is 'consistent with the principle that transport-specific taxes should be imposed only where they improve social or market outcomes in transport markets'.[24] The report stated that:

> Taxes on roads or road user charges should principally be used to provide signals that improve the use or building of roads. There is also a case to recover a fixed-cost component of road use as an access fee or user charge. Coupled with institutional reforms, this could improve accountability in the provision of roads. Fuel tax and other transport taxes are not an efficient or equitable means of financing general government expenditure.[25]

In short, the report found that fuel excise raises revenue but harms economic efficiency and that fuel excise is a 'blunt' instrument that 'does little to improve' economic efficiency because it is not a tool for the allocation of resources.[26] The report found that fuel tax does

not provide a means of addressing 'spillover costs' such as congestion and road damage.[27]

The report also found that the introduction of road pricing would not pay for the full cost of providing and operating the road network, the remaining costs would need to be funded from general tax revenue, or by retaining a network access charge (such as annual vehicle registration) or a variable charge (such as fuel tax) set to recover the efficient costs of road provision.[28]

The report therefore concluded that some fuel tax might be retained to provide a 'variable charge for variable costs of the road network that cannot be priced directly', although it was also noted that this would not be necessary where technology enables road usage to be measured more directly.[29] By way of example, the report noted that the increasing availability of mass-distance-location monitoring GPS technology may allow heavy vehicles to be charged in this way, allowing full exemption from fuel tax and a component of the registration charges.[30]

The Committee notes that recommendation 65 is consistent with the principle of fuel tax hypothecation, albeit as one option for funding the costs of the road network not met by the introduction of a road pricing system. The report stated that:

> The revenue from efficient charges could help finance new urban transport infrastructure, and cover the cost of heavy vehicle damage. But these charges would not pay for the full cost of providing and operating the road network. The remaining costs could be funded from general tax revenue, or by retaining a network access charge (such as annual vehicle registration) or a variable charge (such as fuel tax) set to recover the efficient costs of road provision.[31]

The recommendations and views expressed in the final report of the Commonwealth Government's review, *Australia's Future Tax System,* regarding fuel excise are similar in many respects to those put forward by a number of the stakeholders who provided evidence to the this Inquiry.

## Stakeholder Evidence for Fuel Excise

An option for the reform of federal-state road funding arrangements on which the Committee received a significant amount of evidence was the view that federal government revenue from fuel excise should be hypothecated, in whole or in part, to roads. A number of stakeholders who advocated comprehensive road pricing as at least a partial alternative to the current road funding arrangements, nevertheless expressed support for the hypothecation of fuel excise as a short to medium term means of addressing the vertical fiscal imbalance inherent in the current funding arrangements.

Both Ms Anita Curnow, Director, Network Improvements, and Mr Rob Freemantle, Executive Director, Network and Asset Planning, VicRoads, at a public hearing in Melbourne, 12 April 2010, stated that a change to the way in which fuel excise revenue is distributed might be one way in which road funding, particularly for local roads, could be increased.[32] Mr Freemantle stated that:

> I think the federal government collects something like 38 cents a litre on petrol and diesel, although there are some discounts that apply to diesel, and I think from memory something like 10 cents of that 38 actually comes back. If you wanted to look somewhere, that is probably a good point to start ...[33]

Professor John Taplin, Professor of Information Management and Transport, The University of Western Australia, Business School – School of Economics and Commerce, at a meeting with the Committee in Perth on 9 April 2010, expressed strong support for the hypothecation of fuel excise.[34]

Professor Taplin acknowledged that fuel excise has an important role to play as a general tax, that is, as a source of consolidated revenue, but stated that there is also a need to hypothecate an 'appropriate proportion' of fuel excise.[35]

Mr Peter Daly, Chief Engineer Traffic & Transport, Royal Automobile Club of Victoria (RACV) at a public hearing in Melbourne on 22 February 2010, referred to the disparity between the amount of fuel excise revenue raised by the federal government and the proportion of that revenue that it spends on road infrastructure. Mr Daly commented that:

> When we look at what the federal government spends on roads and what the federal government raises in funding and what is returned to motorists, we see there is quite a disparity. ... and there is no direct link between the revenue that is collected there and expenditure on roads. [36]

Mr Daly stated that the absence of a link between fuel excise revenue and road expenditure also means that it is 'very difficult to have a good, strong, robust and transparent public debate' on the current road funding arrangements.[37]

Similarly, Mr Ian Webb, Chief Executive, Roads Australia, at a public hearing in Melbourne on 22 February 2010, identified the absence of hypothecation of road related revenue, including fuel excise, as the main reason for this lack of transparency.[38] Mr Webb noted that:

> We should be moving towards greater hypothecation of revenues from the road system so that road and transport users can see the linkage between what they pay and what they get.[39]

Mr Wal Setkiewicz, Senior Economic Advisor, Government Relations & Public Policy, National Roads and Motorists' Association Limited (NRMA) at a public hearing in Sydney, 16 March 2010, stated that the organisation has long campaigned for an increase in the proportion of fuel excise allocated to road funding. Mr Setkiewicz stated that:

> ... in New South Wales, from an NRMA perspective we have concerns about the way road funding is allocated. We have issues with the fuel excise arrangement. … We have always campaigned on the basis that there is an imbalance between what is collected from New South Wales motorists and what is given back to them from a federal perspective.[40]

Mr Setkiewicz stated that 'ideally' NRMA supports full hypothecation of fuel excise to motorists but that he considers such an outcome to be unlikely.[41]

Mr Paul Clauson, Executive Director, Infrastructure Association Queensland, at a public hearing in Sydney, 16 March 2010, also stated that he supports the full hypothecation of fuel excise.[42] Mr Clauson cited both more transparent funding arrangements and the poor condition of some roads as important justifications for hypothecation.[43] Mr Clauson advised that:

> In the mind of the user he sees what he is paying and knows what he has been told by government in the past that that money was going to be used for – to build, develop and maintain the national network. When you see the way in which it is being hijacked off into other areas – no one knows where it goes; heavens above! – and you drive down the road and your car rattles apart on the way to Sydney from Brisbane, you get a little bit irritated by the fact that the roads are in that condition and petrol is at whatever price it is ... You say, 'Where is the money going?'.[44]

Mr Chris Vardon, Chief Executive Officer, South East Australian Transport Strategy, at a public hearing in Canberra, 17 March 2010, stated that road infrastructure should be funded by hypothecating a percentage of the existing fuel excise rather than from any new charges such as a road user charging system.[45]

The Australian Automobile Association (AAA) states on its website that, in the longer term, the current system of fuel taxation needs to be reformed and replaced with a road pricing system.[46] While Mr Mike Harris, Chief Executive, AAA, at a public hearing in Canberra,

17 March 2010, reiterated this position, he also expressed support for the hypothecation of fuel excise to roads in the short term, particularly as a means of upgrading the safety of the current road network. Mr Harris concluded that:

> What we would say and what I have said to the federal government is, 'Change the method of charging motorists for the use of the road'.
>
> 'Charge them for what they actually use the road for, hypothecate all that money into road safety and into the road network and invest that money over whatever length of time to improve the road network according to these methodologies'. The excise generates somewhere around $15 billion or $16 billion a year ... of which one third comes back into the road network. We are saying that $24 billion will fix the vast proportion of the national network; that is about a year and a half's worth of excise.[47]

Professor Taplin, at the meting in Perth, referred to his comparative work on fuel taxes in the United States, where the federal government hypothecates 100 per cent of its fuel taxes to road infrastructure and where some states also hypothecate 100 per cent of state fuel taxes.[48] Professor Taplin stated that fuel tax in the United States – that is, federal and state fuel taxes combined – represents approximately one-third, in Australian dollars per litre, of the Australian fuel excise. The low rate of fuel tax in the United States means that, despite full hypothecation, it has a road infrastructure funding shortfall that must be supplemented with additional federal funding (approximately $US 10 billion in both 2008 and 2009). In contrast, Professor Taplin stated that Australia could achieve adequate funding for its road infrastructure by hypothecating no more than 40 to 50 per cent of its fuel excise revenue.[49]

Professor Taplin also stated his support for an integrated approach to road and rail funding, particularly as a means of addressing congestion in Australia's major cities, and suggested that if hypothecation of 40 to 50 per cent of fuel excise was introduced, approximately 20 per cent of that amount should be allocated to public transport.[50] Professor Taplin also noted that 20 per cent is the figure that the United States now allocates to public transport.[51]

Professor Taplin suggested that the primary obstacle to hypothecation of fuel excise in Australia is the preference of Commonwealth Treasury Departments that all revenue should be untied. Professor Taplin stated that:

> Treasury officials on both sides – Commonwealth and state – all have the same goal of preventing hypothecation. ... They want untied money.[52]

Professor Taplin further commented that:

> ... the treasury mentality who would resist that. Simply because that tax exists, they have always had it, they do not want to part with it.[53]

## Stakeholder Evidence Against Hypothecation

The Committee received comparatively little evidence from stakeholders expressing opposition to the hypothecation of fuel excise. Mr Stuart St Clair, Chief Executive, Australian Trucking Association (ATA), at a public hearing in Canberra on 17 March 2010, noted that:

> I can remember quite clearly today a debate over hypothecation in the federal Parliament where it was said, 'If you want to hypothecate what you raise and spend it on roads, that is good. Just write down the list of hospitals you would like me to shut'. That is a fair argument from a Treasurer, because that is the volume of money that is being raised through excise.[54]

However, the ARRB Group Ltd (ARRB), who provide research and information services to the road and transport industry, in its presentation to the Committee during a public hearing in Melbourne, 12 April 2010, identified the current allocation of fuel excise as a major reason for what it described as a lack of transparency within the current funding arrangements. The ARRB stated that fuel excise, as well as state motor vehicle taxes and charges, fails to provide a strong link between revenue raising and road funding mechanisms and therefore provides poor signals to both road users and road agencies and does not encourage efficiency in the construction and use of roads.[55]

For these reasons, ARRB did not favour fuel excise hypothecation as an option for the reform of the current federal-state road funding arrangements. Dr Dimitris Tsolakis, Chief Economist Congestion, Freight and Productivity, ARRB Group, described fuel tax as an intrinsically 'blunt' policy instrument, both in terms of directing the supply of, and allocating demand for, roads and noted that this would remain a problem even if a decision were taken to hypothecate an amount of fuel excise revenue above the current amount of federal expenditure on roads.[56]

However, despite these concerns, Dr Tsolakis agreed with the proposition that an increase in federal road funding from fuel excise would be less complex and cheaper to administer, as well as easier to explain to the public, than attempting to increase funding through road pricing.[57] Dr Tsolakis stated that the necessary funding for roads may therefore best be delivered under a 'dual' system which would include revenue from fuel excise.[58]

Professor John Stanley, Senior Research Fellow in Sustainable Land Transport, Bus Industry Confederation, at a public hearing in Melbourne, 22 March 2010, also described fuel excise as a 'blunt instrument' compared to the 'more precise and targeted' approach of road pricing. He stated that attempting to fund road expenditure requirements using fuel excise should therefore only be considered as a short term solution.[59]

Similarly, Infrastructure Partnerships Australia (IPA), in a recent discussion paper on the potential role of road pricing in Australia, stated that one of the problems with using fuel excise to price road use is that it is a relatively blunt tool for the purposes of demand management since it does not vary according to either location or time of road use.[60]

Professor of Planning and Transport Studies, Greg Martin, Executive Director of Planning and Transport Research Centre (PATREC) stated that hypothecation of fuel excise should be carefully calibrated to funding requirements and applied for a defined period. Professor Martin stated that:

> I think if you did it, there might be a question about [how] it would have to be done against the long-term plan; in other words, know why you are doing it, how much you are doing it and for how long you are doing it. I would not want to make it an open-ended issue ...[61]

## Discussion and Conclusions

The Committee notes that few stakeholders were opposed as to whether fuel excise revenue should be hypothecated, either in whole or in part, to road infrastructure.

While a number of stakeholders expressed strong support for partial or full hypothecation of fuel excise, others saw it as only a short term, or second best, option compared to the introduction of road pricing.

The then Bureau of Transport Economics (now BITRE), in its paper, *Review of Road Pricing in Australia and Overseas*, noted that economic theory does not provide a justification for hypothecation because it holds that expenditure decisions should generally be made on the basis of cost-benefit analysis.[62] However, the paper also noted that hypothecation of motor vehicle taxes and charges may have the following advantages such as:

- the promotion of financial discipline by ensuring that expenditure is restricted to the amount of revenue raised;
- an increased likelihood that road users will accept increases in road related taxes and charges if the revenue generated is

allocated to road infrastructure, rather than diverted to general revenue; and

- a possible benefit to road authorities of not having to argue their case against other areas of government expenditure on an annual basis.[63]

As noted above, the United States hypothecates almost 100 per cent of fuel tax revenue to roads. New Zealand also allocates 100 per cent of its fuel tax revenue to roads.[64] Although there is only limited hypothecation of fuel taxes by European Union nations, rates of fuel tax in those countries are significantly higher than in the United States or Australia.[65] The rate of fuel excise in Australia is also among the lowest of the Organisation for Economic Co-operation and Development (OECD) countries, all of which also levy taxes on petrol.[66] Based on the most recent comparable data (first quarter of 2008), Australia had the fourth lowest rate of fuel excise of the 28 OECD countries for which data was available.[67]

A 2000 report by the Asian Development Bank for the People's Republic of China on the impact of fuel tax on finance for the provincial road sector, noted that the World Bank's increased support for hypothecation of fuel tax could be linked to the 'increasing emphasis on the commercialisation of government agencies as a means for improving service delivery and efficiency'.[68] The report also referred to the World Bank's finding that hypothecation of fuel taxes may represent 'the best available proxy' for a road pricing or road user charging system.[69] The report stated that:

> Nevertheless, there appears to be a continuing and significant role for fuel taxes, at least for the time being.[70]

Further that:

> It can be expected that fuel taxes will continue to be a significant instrument for achieving transport, social and environmental policy objectives of governments for some time, even while the features, efficacy, acceptability and ease of implementation of other means for imposing charges on road users continue to be debated.[71]

The report concluded that road funds and/or hypothecated revenues from fuel taxes are a practical and effective means of 'ensuring a reliable and continuing level of funding that is independent of the annual budget cycle'.[72]

The report also suggested a number of measures by which federal or central governments may retain some control over the application of hypothecated funds, including:

- avoiding the creation of a bias in expenditure patterns by not hypothecating maintenance at the expense of construction, or vice versa;

- the provision of clear planning guidelines and adequate planning capacity to the road fund or in the hypothecation arrangements and transparency in the justification of projects and expenditure decisions;

- restricting the life of a hypothecated fund, or hypothecation arrangements, (for example to ten years) after which time a legislative review should occur to determine whether the fund or arrangements should continue;

- an annual review of road construction and maintenance plans by government; and

- the use of benchmarking and audits to guarantee ongoing efficiency.[73]

The Committee considers that fuel excise is likely to play a continuing role as a significant source of revenue for some time. As the Committee notes in the following chapter, even if comprehensive road pricing is introduced at some time in the future, it may only provide a partial source of road funding. A possible increase in road funding through tax base sharing between the Commonwealth and the states represents a possible solution to the current vertical fiscal imbalance but one which is unlikely to be realised in the short term.

However, as the Committee identified in Chapter Two, there is an immediate need for an increase in road funding, particularly for local roads. For these reasons, the Committee considers that partial hypothecation – for a defined period of time – represents the most practical means of addressing the road funding shortfall in the immediate future.

Professor Taplin stated that Australia could boost the funding of its road infrastructure to adequate levels by hypothecating no more than 40 to 50 per cent of current fuel excise revenue. Professor Taplin also suggested that should such a measure be introduced, it should hypothecate approximately 20 per cent of that revenue to public transport. [74]

The Committee considers that, on balance, it would be appropriate to hypothecate 50 per cent of the revenue raised from fuel excise to roads and that 60 per cent of this revenue should be allocated to

local roads which currently represent the area of greatest need. Since local councils currently receive untied funding in the form of Financial Assistance Grants for local roads, the Committee is also of the view that this additional local roads funding should be tied and should therefore be allocated under the Roads to Recovery program.

The allocation of some road related revenue to public transport is consistent with the integrated approach to land transport funding under the Nation Building Program and recognises the increasingly significant role that public transport will need to play in addressing the demand for scarce road space in Australia's major cities and regional centres. The need for expanded public transport in Victoria's rapidly growing regional centres has been recognised in the Victorian Transport Plan, which committed a total of $50 million to regional bus services in 2010. The plan notes that buses 'provide a crucial transport option in regional Victoria, offering critical access to employment and education opportunities, retailers, health services and recreational facilities'.[75] Under the Plan, 54 new carriages have been ordered to increase capacity on the regional rail V/Line network.[76]

In the first instance, the hypothecated revenue for transport should be allocated to road construction and maintenance at the interface with public transport. This will improve the efficiency and capacity of the road network for both private motor vehicles and public transport such as buses. It will also improve the efficiency and capacity of the rail network for both public transport and freight carriage. Examples of potential interface projects may include: the establishment of dedicated bus lanes; the replacement of busy level crossings with grade separations; safety upgrades to identified level crossings; the expansion of 'park and ride' facilities to provide more people with the choice of leaving their car at the train station when commuting to and from metropolitan areas; the provision of additional parking spaces at train stations which currently lack sufficient spaces; and the shifting of more freight from road to rail. The road safety benefits of such interface projects are discussed in Chapter Six.

The remaining twenty per cent of hypothecated revenue should be allocated to the construction and maintenance of other roads managed by the states and territories.

Finally, the Committee notes that given the comparatively low level of fuel tax in Australia, it may be possible to offset such partial hypothecation by a small increase in the rate of fuel excise. The Committee considers that this would not be unreasonable given that fuel excise has not been indexed since 2001 and there would not be significant welfare loss.

**Recommendation:**

**5. That the Minister for Roads and Ports, through the Council of Australian Governments, advocate that the Commonwealth hypothecate 50 per cent of fuel tax revenue to road expenditure. The additional revenue raised from fuel tax hypothecation should be allocated in the following proportions:**

- **60 per cent allocation to local roads under the Roads to Recovery program;**
- **40 per cent allocation to other roads for construction and maintenance, including improvements to the road interface with public transport.**

**The hypothecation arrangement should be reviewed after a period of five years.**

## Income Tax

As the Committee has already discussed vertical fiscal imbalance has become a defining feature of, and a growing problem for, Australia's federal system of government. It has also been identified as a significant reason for the current national shortfall in road funding because although state and local governments have primary responsibility for the nation's roads, they have a limited revenue raising capacity compared to the Commonwealth Government. The problem of vertical fiscal imbalance was also considered by the Tax Review.[77]

The Victorian Government, in its submission to the Review into Australia's Future Tax System, suggested that the introduction of 'tax base sharing' could provide a possible solution to the problem of vertical fiscal imbalance.[78] The submission stated that:

> There are a range of benefits to using this approach to fund improvements to the State and Territory tax mix. It would not make the taxation expenditure imbalance worse, and could improve it, making taxation more transparent and governments more accountable. It would also give States secure, and less volatile, revenue to plan for the future.[79]

The submission went on to identify personal income tax as a potentially advantageous option for tax base sharing between the Commonwealth Government and the states. The submission noted that:

> On constitutional and other grounds, the personal income tax base could be an option for the Commonwealth and State tax base sharing.[80]

A tax base sharing arrangement for personal income tax was one of the options subsequently identified in the Tax Review as a way of redressing the vertical fiscal imbalance between the Commonwealth and the states. The report, *Australia's Future Tax System, Report to the Treasurer – Part One Overview,* stated that:

> Although the States currently have access to significant taxes, there are problems with the quality of these taxes or the way they are levied. Increasing the rates of existing State taxes would not be an efficient or sustainable way of funding services in the future. Assuming no change in expenditure responsibilities between levels of government, the States will need better access to sustainable tax revenues to deal with these cost pressures.
>
> The capacity to phase-out existing narrow-based taxes depends on the States having access to an alternative, more efficient revenue source. This could be a reformed land tax, revenue from a cash flow tax and/or a tax base sharing arrangement for personal income tax.[81]

The final report also stated that, in common with many of the other reforms proposed in the report, such a change would require greater cooperation between the Commonwealth Government and the states and that one way to coordinate and implement such reforms would be under a new intergovernmental agreement.[82] The report stated that, if well managed, such an agreement:

> … would not only allow for poorly performing taxes to be replaced by more sustainable ones, it could also be a mechanism to deliver better policy outcomes across the federation on an enduring basis.[83]

The Committee agrees with the proposition that tax base sharing, particularly of personal income tax revenue, has the potential to substantially mitigate, or even eliminate, the effects of vertical fiscal imbalance and that it should therefore be a central feature of future federal-state road funding arrangements.

However, the Committee is also mindful that such a reform would represent a fundamental change to Australia's existing tax system and governance arrangements and should realistically be seen as a longer-term option for reform. Notably, it is also likely that such a reform would be contingent on a future intergovernmental agreement between the Commonwealth and the states, as envisaged in the final report of the Tax Review. Therefore, as the Committee has noted above, the need for a significant increase in federal road funding is urgent.

## State Sources of Revenue

# Introduction

As noted, each of the states imposes charges relating to motor vehicle transport. These include:

- motor vehicle registration duty and transfer fees;
- annual motor vehicle registration fees and taxes;
- surcharges or levies on motor vehicle third party vehicle insurance; and
- fees associated with gaining and holding a driver licence.[84]

Motor vehicle taxes and charges contribute an average of approximately ten per cent of state government revenue.[85]

A motor vehicle registration duty and transfer fee is imposed on the sale of new and second-hand vehicles. Duties are approximately three per cent of a vehicle's market value, with minor variations between the states, while separate transfer fees are typically approximately $20 and fixed.[86]

Annual motor vehicle registration fees and taxes vary more substantially between the states. All states and territories have a fixed fee component and all except Victoria have a component that increases with vehicle size measured either by weight or number of cylinders. The charge for Victorian registration and the charges for cars up to six cylinders tend to be between $150 and $200, with some exceptions.[87]

Surcharges or levies on motor vehicle third party vehicle insurance represent either ten per cent of the premium (in Victoria and Western Australia) or a fixed fee (Queensland, Tasmania and South Australia). New South Wales and the territories do not have a specific surcharge on insurance.[88]

Fees associated with gaining and holding a driver licence vary only slightly between the states and territories and typically range from $25 to $40 annually for a licence. Learner permits and testing fees are generally a similar amount.[89]

The revenues from these charges for 2006-07 are shown in Table 4.1 on page 99. These figures should be regarded as 'suggestive rather than definitive' since for some states it is unclear whether transfer fees are included. Driver licence revenues are not reported as several states do not provide separate data. Revenue from Driver Licences is not large but nor is it negligible – for example, for

South Australia in 2006-07, $26.9 million was collected from driver licence fees.[90]

Annual registration fees comprise the largest of the state motor vehicle related revenue sources, at nearly double the amount of revenue raised by motor vehicle registration duty paid on the transfer of vehicles.[91]

Professor Harry Clarke and Dr David Prentice, in a 2009 commissioned research paper for the Tax Review, *A Conceptual Framework for the Reform of Taxes Related to Roads and Transport,* described the economic efficiency of state taxes and charges on motor vehicles as:

> These taxes have a cost-recovery component and can also be viewed as contributing towards the capital costs of roads although there is no explicit hypothecation.[92]

Professor Clarke and Dr Prentice concluded that the size of the 'potential efficiency costs' associated with existing state taxes and charges on motor vehicles, is unknown.[93] However, the Tax Review found that state taxes and charges on motor vehicle use and ownership should be replaced with efficient user charges where possible.[94] Professor Clarke and Dr Prentice also found that there may be some efficiency gains from greater national uniformity of state taxes and charges.[95]

The 2009 review, *Australia's Future Tax System,* Repo*rt to the Treasurer: Part 2 Detailed Analysis – Volume 2*, recommended changes to state government charges on motor vehicle use. Recommendation 66 states that:

> The revenue-raising component of State taxes on motor vehicle ownership and use should be made explicit, and over time only be used to recover those costs related to road provision. The administrative costs of providing government services should be recovered through user charges where applicable.[96]

The report stated that state government charges that relate to the costs of providing government services and which have the potential to improve the efficient allocation of resources should be retained.[97] However, the report found that stamp duty on the transfer of motor vehicles in particular is a 'highly inefficient revenue source' that prevents the efficient allocation of motor vehicles.[98] The report concluded that motor vehicle stamp duty causes people to:

> ... purchase new vehicles and scrap old vehicles less often, and reduce the overall demand for cars. ... some people will continue driving vehicles not suited to their present needs. For example, an older couple whose children have left home might delay getting a smaller car. Alternatively, a young couple may delay upgrading to larger family car when they have children, because of the additional cost.[99]

## Stakeholder Evidence

The Committee received comparatively little evidence from stakeholders on the economic efficiency and equity of existing state taxes and charges on motor vehicle transport.

Dr Dimitris Tsolakis, Chief Economist Congestion, Freight and Productivity, ARRB Group, at a public hearing in Melbourne, 12 April 2010, described vehicle registration fees and stamp duties as:

> ... the big source for the states is vehicle registration fees and stamp duty – $6 billion in 2006–07 – but it is a blunt policy instrument because I pay my registration once a year and I drive every day. Is car registration giving me a good signal as to how much I drive or how much I control?
>
> The idea of transparency in those mechanisms is what I said earlier – in other words, the mechanisms are a bit convoluted so if we decide to keep it, because it is a good system, then we do need to maybe increase the transparency, and we need better mechanisms because the links that exist between the way we raise the revenue and the way that we spend it are very weak and almost non-existent, so we need to really do something there.[100]

In a joint submission to the Inquiry, VicRoads and the Department of Transport, stated that at the time of its establishment in the early 1990's, the Better Roads Victoria Trust Fund was funded from a three cent per litre fuel levy which was part of the then Victorian Fuel Franchise scheme – a state charge on the sale of petrol and diesel fuel. Revenue paid into the fund was directly linked to sales of petrol and diesel and approximately one-third of the funds were allocated to projects in rural Victoria and approximately two-thirds to urban areas. State franchise schemes were effectively prohibited following a decision of the High Court in 1997. Although the Victorian franchise scheme was abolished (as were the fuel franchise schemes of the other states), the Victorian Government has continued to fund road improvement projects through the fund from annual budget appropriations.[101]

Similarly, Mr Bob Phillips, Director, Budget and Financial Planning, Department of Main Roads, Western Australia, at a meeting with the Committee in Perth, 9 April 2010, described hypothecation of both the state fuel franchise levy and of vehicle registration fees as having previously provided WA Main Roads with the necessary

revenue to more effectively fund long-term project-based road infrastructure programs. Mr Phillips stated that:

> The state addressed some of its issues back in the mid-nineties, and a little bit later than that, when it introduced two project based programs and funded it ... through increasing their state fuel franchise levy by 4c a litre ... We developed a 10-year program to bring forward benefits to the road user by doing specific projects ... Then later on, about two or three years later, we did another project based program of works through increasing vehicle registration fees.[102]

### Discussion and Conclusion

The constitutional inability of the states and territories to raise additional own-source revenue for road funding through measures such as the fuel franchise levy, as well as the finding in the Tax Review that a number of existing state taxes and charges should be phased out, once again underscores both the problem of vertical fiscal imbalance for the states and the need for solutions that will provide the states with increased road funding from existing federal revenue sources.

## Goods and Services Tax

Prior to 2000-01 the states and territories received allocations of untied financial assistance grants from the Commonwealth Government for expenditure on arterial roads. The grants were funded from a portion of the revenue collected from the federal excise on petrol and automotive distillate.[103]

These payments ceased with the introduction of the Goods and Services Tax (GST) in 2000-01. As part of the wider changes to federal–state financial arrangements that were also made at this time, a number of state taxes and charges were also abolished. The Commonwealth Government assumed responsibility for collecting the GST revenue on behalf of the states and territories and the Commonwealth Grants Commission (CGC) became responsible for allocating the GST revenue to the states and territories.[104]

The distribution of GST revenue by the CGC is based on a series of needs assessments across a range of funding areas, including a Roads Assessment of the relative needs for recurrent expenditure on arterial roads.[105]

The RACV, in its submission to the Inquiry stated that the decision to allocate the GST revenue to the states 'has gone some way' towards resolving the vertical fiscal imbalance between the Commonwealth and the states.[106]

In their joint submission to the Inquiry, VicRoads and the Department of Transport stated that the basis for the CGC Roads

Assessment has in the past been heavily weighted by road length, rather than road use relativities between states.[107] The submission also noted that Victoria has previously argued that it did not receive its fair share of GST revenue under the current Roads Assessment and that there is a need for greater recognition of road use in making the Roads Assessment.[108]

A 2005 review of the assessments by the CGC resulted in little change to the Road Assessment.[109]

- However, the CGC's 2010 review has recommended that greater weight should be given to road use, and reduced weight to road length, in calculating future Road Assessments.[110]

This change will contribute an additional $158.7 million to Victoria's total assessed GST allocation for 2010-11.[111]

## Local Government Sources of Road Funding

In 2007–08, local government directly raised approximately $10.1 billion in taxation revenue, representing 2.9 per cent of all taxes raised in Australia.[112]

In general, local governments are established under state legislation and have access to a single tax, in the form of local government rates levied on properties. Unlike state governments, local governments fund the greater part of their expenditures through own-source revenue (83 per cent in 2005–06) including through parking fines. Approximately half of the revenue is derived from local government rates.[113]

The ability of individual councils to raise revenue differs between urban, rural and remote councils with respect to population, rating base and the capacity or willingness of councils to levy user charges. This contributes to wide variations between councils.[114]

The 2009 review, *Australia's Future Tax System, Report to the Treasurer – Part One Overview*, found that local rates are a highly economically efficient tax compared to nearly all other taxes currently levied in Australia.[115]

However, local governments have a limited capacity to increase their funding for roads through rate increases.

## Private Sector Funding

# Private Public Partnerships

Historically the role of the private sector in the provision of road infrastructure has been dominated by the use of Public Private Partnerships (PPPs) between the private sector and government.

There are several types of PPPs but in general they involve a contractual arrangement under which a private consortium delivers an asset or service to the state or on its behalf.[116]

Associate Professor Linda English, Senior Lecturer, Discipline of Accounting, Faculty of Economics and Business, University of Sydney, in a University of New South Wales Law Journal article on Public Private Partnerships (PPPs) in Australia, has defined a PPP as:

> … a long-term relationship between the state and a private contractor for the construction, maintenance and operation of infrastructure assets and procurement of related services. In PPPs, the private contractor owns the infrastructure for the term of the contract and provides contracted services which are paid either directly by government or by consumers. Typically, the asset reverts to the state at the end of the agreement .[117]

PPPs are used by most OECD countries to provide both 'economic infrastructure', such as road, rail and energy projects, and 'social infrastructure', such as justice, health and education projects.[118]

PPPs were first introduced to Australia in their current form in the mid 1980s. Initial projects included the Sydney Harbour Tunnel and the privatisation of Victoria's public utilities.[119] PPPs have since been used as a procurement method to construct a number of toll roads in Melbourne, Sydney and Brisbane.[120]

The New South Wales Treasury, in its report, *NSW Public Private Partnerships Policy – An Evolution*, found that:

> Considering NSW and Victoria have now been using the PPP model of procurement for more than 20 years, a clear evolution of policy and practise can be traced. The public sector has developed the necessary skill base to procure infrastructure by way of PPP, with the private sector becoming increasingly innovative and adding significant value to public procurement. This has seen dynamic changes to the way Industry and Government interact.[121]

An example of a successful PPP is Melbourne's CityLink, which is described as a Build Own Operate Transfer (BOOT) arrangement, whereby the service provider is responsible for the design, construction, finance, operations, maintenance and commercial risks associated with the project. The service provider owns the

asset for the duration of the concession period, after which it transfers the asset back to the government, typically at no cost.[122] CityLink has been the largest public infrastructure project using private investment completed to date at a cost of approximately $2.1 billion, comprising $1.8 billion from private consortia and $266 million of associated works and other costs from the state.[123]

## Stakeholder Evidence

The Committee received generally positive evidence from stakeholders regarding the role of the private sector in the provision of road infrastructure.

Mr Brendan Lyon, Executive Director, Infrastructure Partnerships Australia (IPA), at a public hearing in Melbourne on 12 April 2010, expressed strong support for the continued use of private sector funding to build and maintain road infrastructure. Mr Lyon noted that:

> … a continued and diligent focus on the use of the best-value-for-money delivery and operational models, including public-private partnerships but otherwise besides, must continue to be a focus of the public sector to stretch the limited taxpayer dollars further to address our transport challenges.[124]

Mr Lyon stated that PPPs will continue to be a very important delivery model for Australian governments. He referred to research undertaken by Melbourne University on behalf of IPA in 2007 which found that PPPs deliver significant time and cost savings compared to traditional public sector delivery models. Mr Lyon stated that the study found that, on average, PPPs deliver savings of up to 31 per cent compared to traditional government procurement models.[125]

Mr Lyon also stated that PPPs provide a way of enabling governments to fund the construction of large road projects for which there is insufficient public funding available: Mr Lyon stated that:

> … broadly speaking public sector balance sheets do not have the capacity to fund the large motorway projects and meet other requirements given the size of the challenges we face, though PPPs have been a very successful model for the delivery of motorway projects in Victoria, New South Wales and Queensland, and indeed the model that was developed here has been used with success across the world, so we expect that it will continue to be a very key consideration in funding and delivering these roads over the decades ahead.[126]

Mr Rob Freemantle, Executive Director, Network and Asset Planning, VicRoads, stated that VicRoads regards PPPs, and private investment generally, as an alternative source of funding but one which is generally suited to larger projects.[127] Mr Freemantle commented that:

> We have looked at PPPs for projects, but not every project lends itself to a PPP format. It needs to be the very large ones, projects that may not be able to be invested in because of limited funding in the short term. One would certainly have to do the sums on these things, but if it presented an opportunity to bring forward needed infrastructure at an earlier time to give the benefit of that to our industries and to our communities, that is something for which we are quite happy to look at that use of PPPs. I think we have done them pretty well in this state.[128]

Professor John Taplin, Professor of Information Management and Transport, The University of Western Australia, Business School – School of Economics and Commerce, also expressed support for the use of PPPs. Professor Taplin commented that:

> I used not to be an enthusiast for any form of privatisation but I have come around to believe that public-private partnerships are a very good way to go. I would adhere to the World Bank's view on that, that it is managerially and institutionally a good way …[129]

The Committee notes that some PPP road projects, such as the Cross City and Lane Cove tunnels in Sydney have recently experienced financial difficulties in part due to the overestimation of patronage levels, and therefore toll revenue.[130] However, the Committee notes that Victoria's proposed PPP road project, the Peninsula Link, has avoided this risk as it is being provided as an Availability PPP.[131]

The Peninsula Link will be the first road project in Australia to be developed as an 'Availability PPP'. Construction costs will be shared between the government and a private company, which will then receive a quarterly fee to maintain the condition of the road and to ensure that lanes are available at all times.[132] Unlike a traditional road PPP, the construction and operation of the Peninsula Link under an Availability PPP will enable the road to remain toll-free.[133] Under the model, the government will make periodic payments to a private company based on key performance indicators.[134]

As Mr Lyon, Infrastructure Partnerships Australia, at the public hearing in Melbourne, 12 April 2010, explained that:

> Obviously traffic flow is an important consideration. That is why you have seen in large part the delivery of PPP motorway projects in the eastern capitals – because of the population base – but that relies on the use of economic model PPPs. There is no reason, as with the Peninsula Link project which is being delivered in Victoria, that a social infrastructure model cannot be delivered. You are delivering the same innovation gains, you are delivering the same value-for-money propositions, but you are also delivering it using private finance.[135]

Mr Lyon noted that the use of an Availability PPP model to deliver road projects effectively involves a greater use of government debt as part of the financing arrangements but noted that this may be an inevitable requirement in the prevailing financial climate since the Global Financial Crisis. Mr Lyon stated that:

> Of course that continues to have a balance sheet impact, where an economic model does not, but it is likely over the coming 10 years that you are going to need to have a degree of market risk share back to the public sector given the reset of risk appetites following the global financial crisis and indeed the challenges of some highlighted motorway projects like the Cross City and Lane Cove tunnels in Sydney.[136]

Mr Lyon also referred to the need for governments to assume a greater share of the financial risk associated with road construction projects in order to attract sufficient road construction capital from the private sector in the future. Mr Lyon commented that:

> It may be that putting a floor on risk is a suitable option that needs further consideration by Treasury and the public sector across Australia if we are going to attract competitive interests in delivering some of the multibillion-dollar road projects that are needed, particularly in our eastern state capitals.[137]

Further that:

> Over the last 10 or 15 years there has been an increased movement of project risks across to the private sector. That has delivered very significant value for money outcomes to the public sector, but the challenge facing governments now, given the size of funding challenge that exists in terms of road projects in particular, is for governments to be able to attract superannuation and other private investment into that next generation of road projects.[138]

Mr Lyon concluded that:

> In the past you had a lot of capital chasing a few projects. Now, since the global financial crisis, we have got a lot of projects chasing more limited and wary capital.[139]

Mr Peter Daly, Chief Engineer Traffic & Transport, Royal Automobile Club of Australia (RACV) at a public hearing in Melbourne, 22 February 2010, also expressed support for the use of PPPs. Mr Daly stated that:

> We certainly support the use of public-private partnerships. We acknowledge that the way we currently do public-private partnerships and the models that exist do have budget implications, but we believe one of the benefits of involving the private sector through availability charges, direct tolls or value capture is that budgets are backloaded but the benefits are frontloaded into a budget.
>
> Building this critically needed infrastructure now enables us to better capture the value that we would only capture in many years time, and road safety is quite clearly a critical component of that.[140]

However, Mr Daly also expressed the view that governments should seek to use public funding to finance road projects before resorting to private finance. He concluded that:

> In terms of where the private sector can be involved in building infrastructure, the RACV advocates that the state government should first seek federal funding for appropriate road and public transport projects … indeed across the board, and from there engage with the private sector essentially to bring forward the implementation of projects that otherwise would not commence for many years into the future.[141]

The RACV, in its submission to the Inquiry, stated that governments could encourage the uptake of PPP road projects by streamlining the legislative requirements. The RACV stated that:

> A key issue which we believe presents an encumbrance to the timely use of PPP's in Victoria is the need for separate legislation for each PPP project. In our submission to Infrastructure Australia (RACV 2009), we argued that Infrastructure Australia should establish the most desirable form for a PPP and also establish mechanisms whereby individual legislation on a state by state basis is not required.[142]

Mr Mark Fairweather, Chairman, Infrastructure Association Queensland, at a public hearing in Sydney, 16 March 2010, stated that another means of encouraging private investment in road infrastructure through PPPs is to ensure the 'early engagement' of industry.[143] Mr Fairweather noted that:

> … early engagement of industry to improve the chances of success of projects where you are considering PPPs can be very successful and minimise the downside risk of it not working. Having things in place and structures in place to enable early conversations about whether a particular project may or may not be suitable for a PPP – and certainly not all of them will be – can be very successful in managing the downside risk from our perspective.[144]

Mr Paul Clauson, Executive Director Infrastructure Association Queensland, at the same hearing, agreed that:

> If you put the project into the PPP template early to see if it will return value for money, that is very important from our perspective, from the industry's perspective.[145]

Mr Fairweather also referred to the importance of having a 'pipeline' of road projects to ensure that the private sector has sufficient resources to meet the road construction needs over time. This essentially involves the use of a long term strategy to manage the number of projects that are active at any given time. Mr Fairweather stated that:

> What we might term a 'pipeline', [is needed] so that industry has confidence to invest at what might be a sustainable level. We appreciate that there are cycles in terms of funding and availability of funding that will influence that and that broader economic conditions will influence that, but what we have seen in Queensland over the last couple of years is that industry has built up, say, an $18 billion per annum infrastructure spend in Queensland. It is going to come down to a $10 billion per annum spend. The level of investment by industry to gear up to that $18 billion per annum spend is very significant, and the employment issues, as one example, are very significant. Industry will be far more willing to invest, and you will get much better broader community benefits out of it, whether it is cheaper or there is more value for money in the spend for the infrastructure, if there is confidence for longer term investment.[146]

Similarly, Mr Rob Freemantle, VicRoads, referred to the pipeline concept by stating that there is a need for the judicious use of PPPs in order to maintain the viability of smaller road construction and maintenance projects. Mr Freemantle stated that:

> One of the downsides that we have to be careful about is that we have an industry which we work with to deliver infrastructure, be it road or public transport or whatever it happens to be, and if all the work we do is bundled up into big, complicated projects and delivered as PPPs, then we may jeopardise the viability of the construction industry at different levels in the sector. There may be no work for the middle-tier contractors. We cannot afford for that to occur as well so it is very much horses for courses. There are benefits of them [PPPs] in certain applications but I think traditional funding and delivery models equally have their place.[147]

Notably, Mr Fairweather described the role of Infrastructure Australia (IA) as a 'very good first step' in terms of providing the necessary degree of strategic planning from the perspective of industry.[148] He noted that:

> … IA has a role to look at prioritisation across Australia; we suggest that needs to occur. As long as that is tied to what the states are looking to do and is consistent with their planning framework, I think that will assist greatly in helping to manage the pipeline – if there is a commitment given by each of those levels of government that are going to be funding the pipelines.[149]

## Other Evidence

The evidence provided to the Committee was largely consistent with the view that PPPs can be an effective and efficient method of public infrastructure procurement. However, the Committee notes that this view is not universally held and that PPPs have also been the subject of some criticism.

The Public Accounts and Estimates Committee of the Parliament of Victoria, in its 2006 *Report on Private Investment in Public Infrastructure*, referred to the long term effects of PPPs on government debt. The report stated that:

> Whilst the cost of private sector provision of infrastructure may initially appear cheaper than public sector provision … over the long term period of the agreements the private sector looks to a rate of return on private equity of around 11 per cent or higher.[150]

The NRMA, in its submission to the 2010-11 Commonwealth Budget, stated that the use of PPPs for major road construction projects has resulted in an increased cost of motoring, particularly in Sydney and Melbourne.[151] However, it also stated that:

> There is little doubt that the use of these arrangements have led to significant improvements in the road network. In particular, given the reluctance by governments (both Commonwealth and State) to use government debt or budget surpluses to finance infrastructure, the use of PPPs have resulted in some roads being built earlier than they otherwise would have.[152]

The NRMA also noted that PPPs continue to be viewed as 'a costly and inefficient way of financing road projects' and referred to a 2003 study by the Allen Consulting Group which found that PPPs, tolls and user charges were:

> … all less efficient and less equitable than the use of government debt and budget surpluses for funding urban public infrastructure.[153]

The NRMA concluded that while it does not oppose private sector involvement in the provision of road infrastructure, it regards 'PPP style arrangements as one of a number of financing techniques to fund infrastructure development'.[154] It stated that other funding alternatives should be considered, including:

- expenditure of a greater proportion of federal fuel excise revenues on the road network; and
- increased use of government debt to address the nation's growing backlog of road infrastructure projects.[155]

On the other hand, Associate Professor Linda English, in the article on public private partnerships, stated that:

> PPPs provide governments with the opportunity to bring on stream new infrastructure projects earlier than might otherwise be possible, ostensibly without the associated ballooning of public debt. They also enable governments to reap the benefits of VFM [value for money], derived from the use of private money to promote private risk taking and inventiveness.[156]

Similarly, Infrastructure Australia, in its National PPP Policy Framework, noted that the aim of a PPP is to:

> … deliver improved services and better value for money primarily through appropriate risk transfer, encouraging innovation, greater asset utilisation and an integrated whole-of-life management, underpinned by private financing.[157]

The Committee also notes that a 2008 study by Ernst & Young has found that Sydney's toll road networks make a significant contribution to the prosperity of the state, measured in terms of

Gross State Product. A recent report by the Roads and Traffic Authority New South Wales, reported the findings of the study:

> A study of Sydney's toll road network found that it is increasing the State's Gross State Product significantly, by as much as $3.4 billion (or 0.89 per cent of GSP) by 2020, and is creating jobs, around 4,000 by 2020. Its economic contribution is comparable to that of Port Botany, and more than that of Port Melbourne and Melbourne Airport. From a review and update of the economic analysis of the various projects, it was found that the total economic contribution of Sydney's toll road network indicated a net present value of $22.7 billion (Ernst & Young, 2008).[158]

## Infrastructure Australia

All federal, state and territory government agencies are now required to apply a set of national policy and guidelines under the *National Public Private Partnership Policy and Guidelines* (NPPP Policy and Guidelines) which were developed by Infrastructure Australia and endorsed by the Council of Australian Governments (COAG) on 29 November 2008.[159] This comprises the:

- National PPP Policy Framework;
- National PPP Guidelines Overview; and
- NPPP Detailed Guidance Material (volumes 1 to 6).[160]

The NPPP Policy Framework applies to the Commonwealth Government and to all state and territory governments in relation to the procurement of infrastructure using PPPs. The policy defines projects that are likely to offer potential value for money under a PPP as those with a total capital value greater than $50 million and provides that such projects 'should therefore trigger evaluation of PPP as a potential procurement method'. The policy also provides that projects of less than $50 million may also be suitable for delivery as a PPP subject to other value for money factors.[161]

The Policy Framework identifies a number of key principles in the application of PPPs, including value for money; the public interest; appropriate risk allocation; transparency; accountability and engagement of the market only when it is clear that there is scope for a private proponent to deliver value for money. [162]

Value for money is described as the paramount consideration and is defined as:

> … a combination of the service outcome to be delivered by the private sector, together with the degree of risk transfer and financial implications for government. Quantitative factors are tested by comparing the outputs and costs

> of PPP proposals against a neutral benchmark, called the Public Sector Comparator, which is adjusted for risk ...[163]

The Committee for Economic Development of Australia (CEDA), in its report of the forum, *Infrastructure Financing and Models of Delivery*, held in Melbourne on 31 March 2010, described the establishment of Infrastructure Australia as having ended 'years of uncoordinated infrastructure development'.[164]

CEDA noted that Infrastructure Australia had instituted: an audit of the nation's infrastructure; reform of the funding decision-making process; and a process for advising on the appropriate level of government involvement in infrastructure investment.[165]

CEDA delegates also identified the approach established by Infrastructure Australia as key to restoring the faith of investors following the GFC because of its potential to deliver greater certainty in the existence of a 'pipeline' of projects, greater certainty of process and national coordination (for example, avoiding competition among multiple large projects, due at the same time, for the same pool of resources).[166]

## Discussion and Conclusions

The Committee considers that PPPs will continue to be an option for increasing the level of private sector investment in Australia's roads.

The Committee is mindful that some PPP projects, notably in other states, have experienced financial difficulties in recent years. However, the Committee considers it is likely that these risks will be more effectively managed in the future under the national processes established by Infrastructure Australia. Moreover, the Committee notes that many of the concerns regarding the value for money, transparency and accountability of PPP road projects are being actively addressed by the involvement of Infrastructure Australia.

The arrangements established by Infrastructure Australia are aimed at both increasing the use of PPPs as a road funding mechanism and ensuring that careful consideration is given to the use of PPPs on a case by case basis.

The Committee also notes the approach taken by Victoria in extending the use of the Availability PPP model to the procurement of road infrastructure. This illustrates a particular strength of the PPP model – its adaptability to changed circumstances.

The Committee acknowledges the views of the RACV, Infrastructure Australia, and other stakeholders, that the use of PPPs to finance major road projects should be encouraged. The

Committee also notes the view expressed by the RACV that Infrastructure Australia should establish mechanisms whereby individual state legislation is not required to establish a PPP.

However, the Committee also considers that ensuring value for money should be the primary consideration when raising finance for new road infrastructure. Accordingly, the Committee considers that an examination should be conducted, at both State and National levels, to determine the most cost efficient methods of raising such finance for each project, including the option of government borrowing.

**Recommendations:**

6. **That the Minister for Roads and Ports advocates through the Council of Australian Governments that Infrastructure Australia continue to develop processes and policies aimed at encouraging appropriate private sector involvement in Australia's road infrastructure through the Private Public Partnership model, including the establishment of mechanisms whereby individual legislation on a state by state basis is not required.**

7. **That the Minister for Roads and Ports establish a requirement in Victoria, and through the Council of Australian Governments advocate the establishment of a national requirement, that all new road infrastructure projects be subject to an examination of the most cost efficient method of raising finance. For each project, consideration should given to the relative value for money of possible alternatives to the use of Private Public Partnerships, including the option of full government participation through borrowings.**

## Project Alliancing

Project alliancing is an increasingly important method for the utilisation of private sector finance and expertise in the construction and maintenance of public infrastructure, including roads.

In 2009, alliance projects represented an anticipated $8 billion worth of infrastructure procurement by Australian governments and one-third of the total value of public sector infrastructure projects.[167]

The aim of project alliancing is to enable the procurement of major capital assets through a collaborative relationship between a state agency (the owner participant) and one or more private sector parties (non-owner participants).[168] This is achieved through an alliance contract which is aimed at the collective assumption of risk by alliance participants. Alliance contracts are drafted with the goal

of ensuring that participants work as a team that is able to make unanimous decisions in the interests of the project.[169]

The defining features of an alliance contract include:

- the linking of remuneration to key performance indicators;
- establishment of management, reporting and issues resolution structures;
- waiver by alliance participants of the right to take legal action against other alliance participants (except for wilful default);
- right of the owner participant (that is, the state agency) to terminate for its own convenience; and
- an obligation for the alliance participants to act reasonably and in good faith.[170]

Project alliancing has been identified by the Victorian Department of Treasury and Finance as having a particular role to play in the delivery of:

> ... larger, complex and high-risk infrastructure projects, where risks cannot be appropriately dimensioned in the business case (or soon afterwards) and are best managed collectively.[171]

As Chair of the Inter-Jurisdictional Alliancing Steering Committee, the Victorian Department of Treasury and Finance has also taken a lead role in the development of a collaborative approach to project alliancing by Australian jurisdictions. Membership of the Committee comprises the Treasury departments of Victoria, New South Wales, Queensland and Western Australia.[172]

The Inter-Jurisdictional Alliancing Steering Committee recently commissioned a study, by Evans & Peck and the University of Melbourne, into how value for money can be enhanced in the delivery of major physical infrastructure projects for governments under the alliance delivery method. In addition to recommending changes aimed at enhancing value for money, the final report found that alliancing has 'demonstrated its ability to avoid disputes, improve non-cost outcomes and commence projects earlier than by traditional methods.'[173]

An example of the use of alliance agreements in Victoria is the Monash-CityLink-West Gate upgrade project, which is a partnership between VicRoads and Transurban, being delivered under a number of alliance agreements and contracts for design and construction. VicRoads is managing the works on the Monash and West Gate Freeways while Transurban is responsible for work on

the Southern Link section of CityLink.[174] According to the project website, this arrangement will provide greater flexibility in the management of works and reduce construction timeframes and traffic impacts.[175]

The quantity and value of projects delivered under alliancing has increased significantly in recent years. From 2004-2009, road, rail and water alliance projects – in Victoria, New South Wales, Queensland and Western Australia – accounted for $32 billion (29 per cent) of the $110 billion of total infrastructure spending in those sectors across Australia.[176]

## Other Private Financing Options

PPPs and the other private financing options discussed above are primarily seen as a means of financing specific road construction and, to a lesser degree, road maintenance projects.

However, Roads Australia, in its submission to the Inquiry recommended that there should be a more far reaching review of Australia's road funding and delivery arrangements that should include:

> … consideration of how transport infrastructure should be owned, funded, subsidised and/or managed and whether by government, or by some government/private sector mix.[177]

Notably, Roads Australia identified reforms such as changes to the use of fuel excise and the introduction of road pricing as both necessary and positive but as falling short of the fundamental reform required.[178]

Professor Taplin, however, cautioned against privatising responsibility for the provision of roads more generally. He referred to the recent experience in Western Australia, as a lesson in this area. Professor Taplin stated that:

> … in their haste to privatise road construction this state [Western Australia] – and I do not think Victoria fell into this one – dismantled a lot of its capability, too much of its capability, and the result was that some of our roads, some of our quite major roads, have been built substandardly and this is because the state instrumentality had at least temporarily been stripped of some of its capacity because the important thing in road building is the oversight of the private contractor and that became deficient. That is not public-private partnership, that is simply oversight of private contractors.[179]

The Committee considers that there is a need for a balanced approach to the engagement of the private sector in Australia's road funding arrangements and considers that Victoria has been particularly successful in this regard. A key to this success has been the prudent selection of PPP and other private funding arrangements for road projects. The preservation of a central role for VicRoads, which has the corporate knowledge and expertise required to ensure a high standard of road construction and maintenance across Victoria, has also been key.

## Recommendations

**5. That the Minister for Roads and Ports, through the Council of Australian Governments, advocate that the Commonwealth hypothecate 50 per cent of fuel tax revenue to road expenditure. The additional revenue raised from fuel tax hypothecation should be allocated in the following proportions:**

- **60 per cent allocation to local roads under the Roads to Recovery program;**
- **40 per cent allocation to other roads for construction and maintenance, including improvements to the road interface with public transport.**

**The hypothecation arrangement should be reviewed after a period of five years.**

**6. That the Minister for Roads and Ports advocates through the Council of Australian Governments that Infrastructure Australia continue to develop processes and policies aimed at encouraging appropriate private sector involvement in Australia's road infrastructure through the Private Public Partnership model, including the establishment of mechanisms whereby individual legislation on a state by state basis is not required.**

**7. That the Minister for Roads and Ports establish a requirement in Victoria, and through the Council of Australian Governments advocate the establishment of a national requirement, that all new road infrastructure projects be subject to an examination of the most cost efficient method of raising finance. For each project, consideration should given to the relative value for money of possible alternatives to the use of Private Public Partnerships, including the option of full government participation through borrowings.**

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Chapter

5

# Road Pricing

## Introduction

Road pricing, also known as road user charging, involves the application of a direct price on road use.[1] Road pricing is a broad term which is often used to refer to both:

- comprehensive road pricing, which involves charging road users for travel on all roads within a given road network, such as a particular city, region or nation; and

- congestion charging, which is more limited in scope than comprehensive road pricing and involves charging road users for travel on specific roads or sections of a road network, particularly during peak periods, with the primary aim of reducing road congestion.

It is important to note that a comprehensive road pricing system could include a charge on congestion.

There are a number of possible road pricing measures that may be used to implement congestion charging, including:

- facility charging (tolling) – a charge paid by a motorist for passing through a particular section of road; and

- cordon and area charging – both measures refer to a charge for accessing a defined part of an urban network, usually linked with a central business district. The primary aim is to ration demand within an area that has highly concentrated road activity. An area scheme differs from a cordon scheme in that, in addition to charging for movements into and out of a defined area, it also charges for movements within the area.[2]

Measures for the implementation of comprehensive road pricing are known as network-wide charging, which may incorporate elements of each of the above measures, and may also involve charging a motorist for journeys within a network of different facilities, cordons or areas.[3] Comprehensive road pricing, in the form of network-wide pricing, can be applied to a city, region or nationally.[4]

Network-wide charging may involve levies on both urban and non-urban traffic and may vary according to location, time of day and distance travelled. Other factors may be added to each charge to capture the cost of externalities, such as congestion and road wear. A 'fully dynamic' network-wide road price, which varies to accommodate demand for and availability of road space in real time, is generally seen by advocates of comprehensive road pricing as 'theoretically the optimal method for managing the efficient use of road space' since it is aimed at providing the greatest net benefit from all road assets and involves pricing all links of the road network to achieve that end.[5]

In practice, no country in the world has yet introduced network-wide pricing as a means of managing its entire road network. However, network-wide charging has recently been trialled in a number of cities in the Netherlands and the Dutch Government committed to the implementation of a national comprehensive road pricing system, based on a per kilometre charge reflecting the environmental and economic efficiency of a vehicle, and a peak period surcharge.[6] However, the future of the national scheme is now uncertain, following an inconclusive national election in June 2010. As at 21 July 2010, talks between the leading parties had failed to produce a coalition government and the government of the Netherlands remained in caretaker mode.[7]

In recent decades, a number of countries have introduced cordon and area charging. Cordon charging was first implemented in Singapore in 1975 and was converted from manual tolls to electronic tolling in 1998. The city of Bergen in Norway introduced a charge in 1986 and similar schemes were introduced in Rome in 2001, Durham in 2002, London in 2003, Stockholm in 2006, Valletta (Malta) in 2007 and Milan in 2008.[8] Area charging has also been introduced in Trondheim, Oslo, and Singapore.[9]

Road pricing in Australia is currently limited to tolls on some motorways, bridges and tunnels in Sydney, Melbourne and Brisbane.[10] These tolls are designed to cover the costs of construction and operation, and to return a profit to private sector operators.[11]

The two primary objectives of road pricing are revenue generation and demand management.[12]

Road pricing for the purposes of revenue generation is most commonly aimed at cost recovery of road construction and maintenance, including capacity augmentation. However, revenue can also be generated for a range of purposes, including transport funding.[13]

Road pricing for the purposes of demand management is designed to ration access to the road network. The proponents of road pricing

claim that – in contrast to fuel excise – road pricing has a high level of allocative economic efficiency, particularly with respect to the allocation of scarce road space on congested roads. The application of a price on road use is therefore aimed at allowing better management of the road asset, particularly if the price is varied with the aim of influencing drivers to travel at particular times, on particular routes or to decrease unnecessary travel.[14]

A central premise of road pricing is that road users do not currently meet various costs for use of the road network, which are instead imposed on society at large. Pricing levels under a road pricing system are designed to require road users to meet at least part of the costs of their actual use of the road network, such as road maintenance, air pollution and congestion.[15]

According to road pricing theory, despite the existence of a range of fees and charges on road use, notably Fuel Excise, vehicle registration fees, Stamp Duty and road tolls, these charges are either:

- variable – and therefore provide only partial reimbursement for the full cost of road development and maintenance; or,

- flat – and therefore do not reflect actual road use, resulting in over-charging of some users and under-charging of others.[16]

## Australia's Future Tax System Review

As noted throughout this report, the May 2010 release of the tax review, *Australia's Future Tax System, Report to the Treasurer – Part Two: Detailed Analysis,* called for the introduction of congestion charging in major cities but found that the introduction of comprehensive road pricing in the future would depend on the cost-effectiveness of new technology.[17] The report also recommended that Australia should accelerate the development of heavy vehicle road use charging.[18]

The report noted that poorly performing road networks 'harm the amenity, sustainability, liveability and productivity of society' and identified the following key benefits of road pricing:

- a shift from arbitrary taxes (such as fuel tax and motor vehicle stamp duties) to efficient road pricing would enable Australia to maximise the value of its existing transport infrastructure; and

- reduced road congestion, quicker travel times and road infrastructure investment that is tailored to user demand would improve productivity, living standards and sustainability.[19]

The two relevant recommendations from the report are recommendations 61 and 62.

Recommendation 61 states:

> Governments should analyse the potential network-wide benefits and costs of introducing variable congestion pricing on existing tolled roads (or lanes), and consider extending existing technology across heavily congested parts of the road network. Beyond that, new technologies may further enable wider application of road pricing if proven cost-effective. In general, congestion charges should apply to all registered vehicles using congested roads. The use of revenues should be transparent to the community and subject to further institutional reform.[20]

Recommendation 62 is relevant to heavy vehicles and states:

> The Council of Australian Governments (COAG) should accelerate the development of mass-distance-location pricing for heavy vehicles, to ensure that heavy vehicles pay for their specific marginal road-wear costs. Revenue from road-wear charges should be allocated to the owner of the affected road, which should be maintained in accordance with an asset management plan. Differentiated compliance regimes to enforce this pricing policy may need to be considered to balance efficiency benefits from pricing against the costs of administration and compliance for some road users.[21]

In making the case for recommendations 61 and 62, the Review found that the social costs of road use, such as urban congestion and the costs of road-wear caused by heavy vehicles, cannot be efficiently priced through fuel tax because they are not related to the amount of fuel used. The report found that such costs – described as 'spillovers' since they affect other road users and the wider community – should be reflected in road pricing.[22] The report concluded that:

> If people faced prices that included the costs of spillovers, they would make better decisions from the point of view of society as a whole. ... A well-functioning and efficient road network would help achieve the best use of infrastructure for society by providing clear and direct price signals to potential road users.[23]

The report found that despite rapid advances in technology, it is not yet feasible to introduce a 'theoretically ideal' road pricing system in which prices vary continuously according to time and location.[24] However, the report also found that the necessary technology is sufficiently advanced to allow 'limited road pricing for specific applications'.[25]

## Recommendation 61

The first such application of existing road pricing technology recommended by the 2010 final report, *Report to the Treasurer – Part Two: Detailed Analysis,* targets urban congestion, which is forecast to impose increasing costs to the Australian community in the future.[26] The report found that while the option of increasing the supply of new roads in most major cities is declining in terms of both cost effectiveness and the efficient allocation of road space, it concluded that:[27]

> Congestion can be reduced by imposing a charge or tax that varies according to prevailing levels of congestion. In practice, this means a variable tax that rises at peak periods, falls away as usage falls, and is zero when there is no congestion.[28]

The report noted that the costs and benefits of particular congestion charging schemes would differ from city to city and within the same city but found that:

> As a first step, there are likely to be benefits from introducing variable congestion charges on individual tolled lanes, or from converting existing toll roads to congestion pricing (see Recommendation 61).[29]

And that:

> Over time, congestion pricing should extend to all significantly congested parts of the road network, subject to cost-benefit assessment and the pricing technology available.[30]

The report found that such measures could be taken using the road pricing technology currently used on Australian toll roads.[31]

The report also addressed the equity of congestion pricing and found that some type of compensation may be justified for particular road users, such as those for whom the resulting time savings would not outweigh the cost of the charge or those who lack transport alternatives.[32] In particular, the report found that:

> … the introduction of congestion charging needs to be coordinated with (and to help finance) additional investment in public transport for affected communities. Congestion charges can also help finance the provision of new road capacity in congested areas …[33]

## Recommendation 62

The second application of existing road pricing technology recommended by the 2010 final report, *Report to the Treasurer – Part Two: Detailed Analysis,* would target the costs of road-wear caused by heavy vehicles. The report noted the findings of a 2006 survey by the Australian Productivity Commission which found that between 32 and 100 per cent of road maintenance costs are attributable to heavy vehicles, while the road wear caused by cars is insignificant.[34]

The report noted that the road-wear caused by heavy vehicles 'increases exponentially' according to the loaded axle weight of the vehicle and found that the current fuel-based charges on heavy vehicles result in over-recovery from some heavy vehicles and under-recovery from others.[35]

The report also found that the current charges fail to fully reflect the wear that trucks cause to particular roads, due to variations in pavement durability between roads, and provide little incentive for heavy vehicle users to 'consider the full road-wear consequences of their decisions about mode, route and types of truck.'[36]

The report further noted that the current arrangements mean that road owners do not receive compensation from road users who have damaged their roads, with the result that road owners, such as local councils, at times seek to protect the value of their assets through 'prescriptive regulations or access restrictions'.[37] The report found that:

> Trucks should pay for the specific road-wear they cause. Charges for road-wear would be based on the actual loaded weight of a truck and vary according to the particular roads on which it travels. Revenue from these charges could be used to compensate road owners (including local governments) for the maintenance costs attributable to the truck.[38]

The report on the tax review suggested that mass-distance-location pricing for heavy vehicles could be achieved using available telematics (the transmission of information using a mixture of computers and wireless technologies) such as in-vehicle units (IVUs) and toll gates.[39] However, the report also noted that while such technology might be an appropriate means of road pricing in the case of larger heavy vehicles, such as B-triples which are mainly used on intercity routes throughout the year, it may not be appropriate for smaller heavy vehicles or those which are used infrequently and on a narrow range of roads or for particular purposes.[40]

The recommendations on road pricing and congestion charging were among the vast majority of those recommendations which the Commonwealth Government did not address in its initial response and which it neither ruled in nor out.[41]

Mr Craig Newland, Director Technical Services, Australian Automobile Association (AAA), during an interview on ABC Radio National's *AM* on 2 May 2010, also noted that the Commonwealth Government had left the door open on the option of congestion and road user charging. Mr Newland stated that:

> The fact the [Commonwealth] Government has been silent on those recommendations we take to mean that they have not yet ruled it out but not yet ruled it in. So we would be looking to go back to the Government to see if we can convince them it is an important enough issue to get a good timeframe for the introduction of a revamped system.[42]

## Victorian Developments

# The Victorian Competition and Efficiency Commission Report

The Victorian Competition and Efficiency Commission, in its 2006 report on transport congestion, *Making the Right Choices: Options for Managing Transport Congestion*, identified a number of options aimed at addressing the problem of congestion in Melbourne for consideration by the Victorian Government.

One of the options identified in the report was a feasibility study into road use charging in Melbourne. The report stated that such a study could:

> … identify potential benefits and costs of different options, including for business; their technical feasibility; the need for alternative transport options; and equity considerations. The study could also review the current level of road use charges compared with the full cost of road use, and the impact of recent increases in fuel prices on transport choices.[43]

The report also stated that:

> A comprehensive Melbourne road charging study would be useful to understand better the benefits of road use charging in a future environment where congestion may be increasing, and to permit a comparison of these benefits with the costs of this form of demand management.[44]

The report also identified trials of time-of-day charging on CityLink and EastLink, and of high occupancy toll lanes on new lanes constructed in Melbourne, as additional road pricing options that may help to address congestion.[45]

The Victorian Government, in its response to the Commission's report, stated that it did not support the option of a feasibility study for road pricing in Melbourne. The response stated that:

> The Government believes a study is not needed at this time.
>
> The Government's policy on tolling roads is well known. Firstly, it must be that the road cannot be built within current budget capacity, secondly, that it must be a very substantial new road project, and thirdly, that it would not require the closure of other roads, or force people to use the road.[46]

The response also stated that the Victorian Government did not support the option of trialling a high occupancy toll lane on new lanes constructed in Melbourne.[47] However, it gave in-principle support to a trial of time-of-day tolls on current toll roads.[48] The response described the merits of such a trial as:

> … an option to manage growing traffic demands along these corridors and gain information on the effectiveness of this option, in combination with other measures.[49]

The response stated that since the Victorian Government did not support an increase in tolls, it would work with the toll-road operators to design a trial that would not lead to increases in current tolls.[50]

To date, time-of-day tolling has not been introduced on Melbourne's existing toll roads. CityLink operator Transurban stated in response to the proposal that it would not agree to a trial in the absence of either a large financial 'windfall' or an extension of its contract to operate the road beyond 2034. Then Treasurer Mr John Brumby stated that he would not allow an increase in tolls and noted that the Government could not compel toll operators to conduct a trial of off-peak tolls.[51] The Committee also notes that time-of-day tolling has also not been embraced by ConnectEast, the owner and operator of EastLink, although motorists are eligible for a twenty per cent discount on weekends and public holidays.[52]

By way of contrast, time of day tolling was introduced on the Sydney Harbour Bridge in early 2009. At the time of commencement, motorists were subject to a peak period toll (6.30am to 9.30am and 4pm to 7pm Monday to Friday) of $4; an off peak toll (7pm to 6.30am Monday to Friday and between 8pm to

8am at weekends and on public holidays) of $2.50; and a shoulder toll (9.30am to 4pm Monday to Friday and 8am to 8pm on weekends and public holidays) of $3.[53] Figures collected by the Roads and Traffic Authority of New South Wales suggest that, as a result, there has been a decline in peak hour traffic on the bridge of almost ten per cent.[54]

The Committee considers it is unfortunate that the Victorian Government has not been able to conduct a trial of time-of-day tolling. The Committee also considers that the Victorian Government should ensure that the option of time-of-day tolling is specifically included in all future contracts with toll road builders and/or operators. Further, the Victorian Government should continue to explore the options for renegotiating the terms of the CityLink and EastLink contracts, including the possible commissioning of cost benefit analysis on the costs associated with extending the existing contracts and/or making additional payments as against the benefits of time-of-day charging.

An additional and less expensive option in the short-term may be to conduct a trial of time-of-day tolling on a major Melbourne arterial road which is subject to congestion.

## The Eddington Report

In 2006, the Victorian Government requested Sir Rod Eddington to conduct a study into options for improving east-west transport connections across Melbourne. In March 2008, Sir Rod Eddington finalised the East West Link Needs Assessment report, *Investing in Transport,* and delivered his report (the Eddington Report) to the Victorian government.[55] The Eddington Report recommended that:

> The Government should re-evaluate its current road tolling policy to ensure that the long term benefits of new road investments can be fully realised (including public transport priority, improved cycling opportunities, road network balance and improved local amenity).[56]

The Eddington Report made the following points in support of the above recommendation:

> In recommending that the Government re-evaluate its current road tolling policy to ensure that the long term benefits of new road investments can be fully realised, the Study Team was not considering whether that would improve the likely use of a toll road; rather, it was a genuine attempt to ensure that a balanced outcome could be achieved for the community as a whole. When new road capacity is added, there are opportunities to improve outcomes for other users of the road space, including public transport, cycling and local communities. In the future, there will also be an opportunity (or a need) to

> ensure that Melbourne's road space is used in an efficient and balanced way. At that time, there might be a desire to review the current tolling policy to ascertain whether it helps or hinders the most efficient use of Melbourne's road network. That review would be most likely to arise as part of a broader road pricing or congestion reduction initiative.[57]

The Government, in responding to the release of the Eddington Report, stated, in April 2008, that it would be wrong to rule in or out any of its specific proposals.[58]

According to a recent article in *The Age*, Treasurer John Lenders, at a Property Council of Australia event on 13 May 2010, stated that the implementation of congestion charging was not on the Victorian Government's 'immediate agenda' but that the Government would 'follow what a national approach is'. He also stated that while there would be no action on congestion charging by the Commonwealth Government before 2013-14, if the Commonwealth came up with a more efficient way of raising tax, 'we are willing to look at it'. The article claimed that the Department of Transport had conducted twelve pieces of work on congestion charging since 2007, which it refused to release to *The Age* under freedom of information legislation.[59]

## Heavy Vehicle Road Pricing

A 2010 report by Infrastructure Partnerships Australia (IPA) found that the application of differing per kilometre rates for the use of freeways and major arterials, compared to local roads, may provide a longer term reform opportunity for heavy vehicle road use pricing. The report stated that such a charge could be used to encourage heavy vehicles to use designated corridors (such as freeways) and thereby reduce the impact of freight carriage on local roads.[60]

The Council of Australian Governments (COAG) Road Reform Plan (CRRP) project, which is part of COAG's National Reform Agenda, is aimed at promoting 'a more efficient, productive and sustainable provision of and use of heavy freight infrastructure'. In early 2010, a CRRP Board, chaired by VicRoads Chief Executive, Mr Gary Liddle was formed with responsibility for setting the direction of the project and monitoring its progress.[61]

The project is also described as having the potential to improve the link between heavy vehicle road use and funding.[62]

The CRRP project, which is being managed by the Australian Transport Council, is being conducted in the form of a feasibility study, which will report on the following areas:

- institutional reform: the structures and processes that will improve investment and operating decisions;

- pricing: possible pricing structures and costing frameworks; and

- business systems: options and practicalities of different technologies and systems that could support a pricing framework.[63]

The first phase of the project, which focused on developing the necessary elements for mass-distance-location based charges through research and policy development, including incremental pricing, has been completed and was considered by COAG at a meeting in Darwin on 2 July 2009.[64]

The Committee notes that the Australian Productivity Commission recommended in 2006 that incremental pricing could be used to provide 'a base for testing direct road user pricing' for higher mass and other innovative vehicles and found that it could deliver potentially large efficiency benefits in its own right. The Commission also recommended that the introduction of such incremental pricing should build on the Intelligent Access Program (IAP).[65]

The Commission also noted that there is currently both over-recovery and under-recovery between and within vehicle classes under the existing charging system. For example, heavy vehicles travelling longer than average distances and/or carrying heavier than average loads are currently 'cross-subsidised' by other vehicles within the same class. The Commission also found that there may also be significant cross-subsidies according to location of travel since the available evidence suggested that the costs of heavy vehicle road use are lower on the inter-capital corridors.[66] It is therefore likely that the introduction of mass-distance-location charging, in place of the current charges that apply to heavy vehicles, would result in reduced costs for some heavy vehicle operators. While there may also be some cases of increased costs, the likelihood and extent of this cannot be determined in the absence of a feasibility study of the kind currently being conducted in the form of the Australian Transport Council's (ATC) CRRP project.[67]

The Commission also recommended that the introduction of such incremental pricing should build on the Intelligent Access Program (IAP).[68] The goal of the IAP is to implement a voluntary system designed to monitor freight vehicles remotely by satellite based telematic services to verify that they are complying with their agreed conditions of operation, in other words, ensuring that freight vehicles 'operate how, where and when they should'.[69] The IAP currently only tracks vehicle combinations for route compliance.[70]

The Australian Transport Council (ATC) found in its May 2009 report, *COAG Road Reform Plan Phase I Report*, that the IAP already utilises the technological components needed for mass-

distance-location to an 'evidentiary standard' and that similar systems are now widely used across Europe.[71] The report found that:

> It would therefore be reasonable to assume that, from a practical point of view, the major barrier to implementing a regulated dynamic electronic MDL [mass-distance-location] regime is not the state of currently available technology but rather one of cost. A further issue is the significant 'cultural' shift of using on board technology based systems for regulatory/pricing purposes. Some elements of the heavy vehicle industry are strongly opposed to this.[72]

The ATC report found that the approximate costs of installing the necessary devices to allow full mass-distance-location charging for semi trailers and B-doubles are approximately $3,000 and $4,000 respectively.[73]

The Committee notes that a government sponsored trial of mass-distance-location charging involving the fitment of the necessary technology for 100 heavy vehicles would therefore probably cost less than half a million dollars. The Committee considers that the Victorian Government should either advocate the commencement of such a trial under the IAP, or establish its own trial, in order to progress the development of mass-distance-location charging for heavy vehicles. Such a trial should include detailed consideration of the potential for mass-distance-location charging to reduce the costs of heavy vehicle operators within certain classes and on particular routes. The Committee considers that the Commonwealth Government should establish such a trial.

## Stakeholder Evidence

### Infrastructure Partnerships Australia

Infrastructure Partnerships Australia (IPA), in a report published in May 2010, titled *Urban Transport Challenge: A Discussion Paper on a Role for Road Pricing in the Australian Context*, identified urban road congestion and the need for new sources of revenue for increased investment in land transport infrastructure, as two key reasons for consideration of comprehensive road pricing in Australia. The IPA report stated:

> The concept of road pricing has been debated for many years. It is advocated as a way of managing demand for road space, while also generating new revenue for investment in transport assets. …
>
> Setting appropriate price signals for road infrastructure can:

- Better match the demands of road users with the available capacity or 'supply' of road space;

- Provide a basis for replacing outdated and inappropriate taxes and fees, and provide a fairer set of charges which match charges and payments to actual road use and the impact this has on society; and,

- Provide a more sustainable and transparent funding mechanism for maintaining and improving the transport system.[74]

Mr Brendan Lyon, Executive Director of IPA, at a public hearing in Melbourne, 12 April 2010, described Australia's transport infrastructure investment needs and urban congestion costs as follows:

> Estimates of the levels of infrastructure investment required over the coming 10 years range up to $770 billion. Urban congestion costs … are already estimated by the Commonwealth at over $9.4 billion per annum, and the Business Council of Australia in separate research estimated the cost to be more than $16 million per annum.
>
> Most of the Commonwealth and the Business Council of Australia agree that the cost of urban congestion will double between the present and 2020.[75]

Mr Lyon also referred to the predicted increase in Australia's population to a total of 35.9 million by 2050 as a further reason for measures aimed at addressing urban congestion.[76] Mr Lyon stated that:

> Our modelling found that 90 per cent of this growth will need to be accommodated in Australia's existing urban footprint so that means getting our roads, and indeed our public transport networks, optimised as a key national objective and consideration.[77]

In this context, Mr Lyon described the challenge of maintaining and improving the mobility of Australia's land transport infrastructure as 'one of the most significant and profound challenges that is facing Australia's governments at all levels'.[78]

Mr Lyon stated that the introduction of road pricing would provide road managers with a demand management tool which could reduce congestion by increasing the capacity of the road network. Mr Lyon also stated that road pricing would provide a more efficient tax collection method than the current 'range of conflicting tax signals and price signals that are sent to motorists'.[79] Mr Lyon further noted that the introduction of road pricing would need to include the full hypothecation of revenues to transport projects, including roads, other modes of freight carriage and public

transport. He stated that this would be particularly important because experience overseas had demonstrated that public acceptance of direct road pricing is directly linked to the way in which the resulting revenues are applied.[80]

Mr Lyon also stated that road pricing could play an important part in efforts to meet Australia's future freight challenge. Mr Lyon cited research that suggests that freight volumes and distances will double in Australia by 2020 (and triple by 2050) and that the road network will increase its share of the freight task relative to rail until 2020, after which time its share will begin to increase.[81] Mr Lyon identified road pricing as having a role to play in achieving an increase in the proportion of the overall freight task carried by rail after 2020.[82] Mr Lyon commented that:

> … as we start to get the rail networks right and as we start to deal with issues like correct infrastructure pricing and transport pricing, we will see rail return increase as a proportion of the overall freight task after 2020.
>
> Of course there are greater efficiency and indeed safety dividends in terms of moving an increased amount of freight by rail, but under the status quo, because of the levels of growth, it is unlikely to increase as a proportion [of the overall freight task].[83]

Mr Lyon stated that while IPA strongly supports the introduction of road pricing, it also acknowledges the need for informed public debate with the aim of achieving public consensus.[84]

The Urban Transport Challenge report by IPA, included a detailed description of a potential road pricing model for Australia. IPA recommended that Australia should introduce a location and distance based road user charge for all vehicles as follows:

- **Heavy vehicles** (vehicles with a loaded weight of more than 4.5 tonnes) – a variable road use charge, based on a combination of vehicle mass, distance travelled and location (including a base location rate, urban location rate and a time-of-day charge for areas covered by the urban rate); and

- **Light vehicles** – utilisation of existing tollways in Melbourne, Sydney and Brisbane to establish a fully dynamic or variable tolling regime, followed by the introduction of a road use charge similar to that proposed for heavy vehicles but which does not include a charge on vehicle mass.[85]

The IPA report also stated that its proposed road pricing scheme was comparable in a number of respects to a scheme that has been designed for introduction in the Netherlands in 2012 for heavy vehicles and in 2013 for passenger cars.[86] Notably, like the IPA's proposed scheme, the Dutch scheme would also replace current

fixed taxes and charges paid by road users with a per kilometre charge and would hypothecate all revenue to a transport infrastructure fund for investment in construction and maintenance of roads and expansion of public transport.[87] The system is not intended to generate additional national revenue but to achieve a fairer division of the costs of road use between road users.[88]

A six month trial of the Dutch road pricing scheme, using GPS technology in the city of Eindhoven, was recently announced a success by IBM, one of the companies involved in the scheme. In a recent press release IBM announced the following key findings of the trial:

- 70 per cent of drivers altered their driving behaviour by avoiding rush-hour traffic;
- drivers achieved an average reduction of more than 16 per cent in their average per kilometre costs;
- a clear system of incentives is vital to changing driving behaviour; and
- instant feedback provided via an On-Board Unit display, on the price of the road chosen and on total charges for each trip, can also play a key role in changing driver behaviour.[89]

As noted above, however, the implementation of the Dutch price per kilometre scheme is now dependent on the decision of a future Dutch government.[90]

## Moving People – Solutions for a Growing Australia Report

A recent collaborative report published by the Australasian Railway Association (ARA), the Bus Industry Confederation (BIC) and the International Association of Public Transport (IAPT), entitled *Moving People – Solutions for a Growing Australia*, has also recommended the introduction of comprehensive road pricing in Australia.[91]

The report, which was jointly authored by Adjunct Professor John Stanley of the Institute of Transport and Logistics Studies, University of Sydney and Simon Barrett, Managing Director of L.E.K. Consulting, Australia, recommended the replacement of existing excise and registration charges with a road pricing system that would cover all vehicle classes and all costs attributable to road use. The report argues that such charges would better reflect the real costs associated with road travel, including congestion, crashes, health, road damage, air pollution and noise and recommends that the revenue generated from such a scheme should be allocated to public transport.[92]

The report suggested the following possible elements for inclusion within a road pricing scheme:

- time of day and location based congestion pricing;
- a usage–based charge to meet carbon costs;
- a usage–based charge to meet the costs of road construction and maintenance attributable to lighter vehicles;
- tonne per kilometre charges for the additional road damage caused by heavy vehicles;
- a use-based charge to meet the external cost component of crash costs; and
- use-based charges on vehicles for the costs of air pollution.[93]

The report stated that reform of road pricing would provide an opportunity to also reform pricing of public transport services. The report stated that:

> One reason why public transport services are financially supported by state governments (and some councils) is the failure to charge road users the external costs attributable to their decisions.[94]

The report stated that the implementation of such a system would require an Intergovernmental Agreement between the federal and state governments, since 'the incidence and scale of revenue flows would differ substantially from the current arrangements'.[95]

The report also called on the Council of Australian Governments (COAG) to require the ATC to advise on the reform of public transport pricing in a manner consistent with the proposed road user charging scheme, with a particular emphasis on social inclusion issues, by December 2010.[96]

Professor John Stanley, co-author of the *Moving People* report, at a public hearing in Melbourne on 22 March 2010 in his capacity as Senior Research Fellow in Sustainable Land Transport for the Bus Industry Confederation, expressed his support for the introduction of comprehensive road pricing, as a means of addressing both historical under-investment in Australia's road infrastructure and externalities such as congestion. Professor Stanley commented that:

> … investment in transport in Australia from 1963 to 2008 ... for the first 10 years or so it was running at around 3 per cent of GDP. By the 1990s it was running

> at more like 1.5 per cent. In other words, in terms of the relative size of the economy, the amount we have been investing in transport has about halved over those three decades. … there was a significant recovery back in the first decade of the 2000s, but that has nowhere near closed the gap. It has got us back to something like 2.5 per cent of GDP, but after a period of three decades of decline in investment share you would expect to see some problems in our transport systems.[97]

He further noted that:

> … every additional car on the road in the morning peak adds about $1 in the really congested parts of the network to the total cost of all cars moving but the individual motorist per kilometre probably only incurs about 10 cents of that.[98]

Also that road pricing is:

> … the way forward. We should get rid of excise charges, we should get rid of registration, and we should replace them with use-based charges, which I have said should be set on marginal social costs. What are marginal social costs? They are the costs that road users cause the community when they use the road at different places and at different times of day.[99]

Professor Stanley referred to the decline in traffic congestion during school holidays as illustrative of the significant improvements that can be gained from a relatively small reduction in the number of cars on the roads. Professor Stanley stated that:

> In school holiday time the actual traffic volume on the road does not drop by more than about 5 per cent or 6 per cent. It is not a lot, but congestion almost disappears. Why is that so? ... When you are in really congested conditions every extra car adds massive costs on to the rest. If you can get a small reduction in traffic of 4 per cent or 5 per cent … that will give you about three-quarters of your congestion cost savings.[100]

Professor Stanley stated that progress at the national level towards the reform of current road funding arrangements has been slow and that the Victorian government should 'seek to drive the reform of road pricing and funding arrangements through COAG'. He also emphasised that community consultation by governments would need to be a critical element of any future road pricing reform.[101]

## Australian Automobile Association

The Australian Automobile Association (AAA) has also proposed a comprehensive road pricing scheme that has a number of similarities to that proposed in the *Moving People* report and in the

final report of Australia's Future Tax System Review, *Australia's Future Tax System, Report to the Treasurer*. In its submission to the Tax Review, the AAA recommended the replacement of fuel excise with a charge paid by road users for the full social costs of their road use. The AAA recommended that a road user charge should comprise an access charge and a user charge. The access charge would reflect the cost of vehicle registration while the user charge would meet the external costs of road use, including congestion, road wear, crashes, air and noise pollution and greenhouse gas emissions.[102]

Notably, the AAA's submission to the Tax Review also recommended that congestion charging should in practice be a matter for state governments and should only be implemented following consultation with stakeholders. The submission also recommended that congestion charging should only be introduced where congestion exists and should be both time and location specific.[103]

Also in common with both the *Moving People* report and, *Australia's Future Tax System, Report to the Treasurer*, the AAA submission to the Tax Review stated that the introduction of comprehensive road pricing would require a cooperative approach between federal and state governments. However, it noted that the introduction of road pricing would be unlikely to obviate the need for road agencies to continue to receive funds from consolidated revenue.[104] Lastly, the AAA submission stated that any proposal for reform would need to ensure motorists would be no worse off than under the current arrangements.[105]

Mr Mike Harris, Chief Executive, AAA, at a public hearing in Canberra, 17 March 2010, reiterated the AAA's call for the introduction of comprehensive road pricing, including the hypothecation of some road pricing revenue to programs aimed at improving road safety. Mr Harris stated that:

> What we are saying is, 'Change that method of taxing the motorist. Charge them for what they actually use the road for, hypothecate all that money into road safety and into the road network and invest that money over whatever length of time to improve the road network according to these methodologies'.[106]

## A Conceptual Framework for Taxation Reform Relating to Roads and Transport

Professor Harry Clarke, School of Economics and Finance, La Trobe University, at a public hearing in Melbourne on 1 March 2010, expressed support for the introduction of congestion charging in some of Australia's major cities and for the revenue to be

hypothecated to road infrastructure.[107] Professor Clarke described the aim of congestion charging as follows:

> The idea is to think about people making journeys in a city and trying to work out what are the discretionary journeys taken in a city and trying to shift a fraction of those discretionary journeys away.[108]

Professor Clarke further noted that:

> You are only interested in deflecting a small amount of discretionary traffic off the road in order to greatly improve the congestion situation.
>
> People often give the figure of 40 per cent of journeys in a city being discretionary. If you can cut into one-quarter of those you will substantially relieve the congestion issue, and that is the target.[109]

Professor Clarke stated that overseas experience has demonstrated that a focus on 'supply measures' alone, that is, the construction of additional road space in urban areas, will not resolve the problem of traffic congestion. Professor Clarke stated:

> … the experiences of cities in the United States and most European cities suggest that supply measures are not going to resolve traffic congestion issues; they are just not, they are going to fail. They are going to be pursued again and again, and installing extra infrastructure becomes more and more expensive just because land is expensive in large cities, and eventually you have to deal with the demand side of things.[110]

However, in contrast to the Tax Report, Professor Clarke stated that he does not support the phasing out or reduction of fuel excise.[111] As noted in the previous chapter, Professor Clarke described fuel excise as a very effective tax for the purposes of revenue raising in the sense that it does not cause significant changes to people's behaviour and therefore causes minimal market distortions.[112] Instead, Professor Clarke suggested that there may be a case for reducing some of the other existing charges faced by motorists in the event that road pricing is introduced.[113]

Professor Clarke stated that the technology required for comprehensive electronic road pricing is now available, using either GPS technologies or overhead gantries. He stated that it would be possible to introduce partial road pricing on the major ring roads and arterials, in a manner similar to the cordon systems currently operating in Singapore and London. However, Professor Clarke stated that placing a price on only certain parts of the city would be likely to divert traffic onto the unpriced roads.[114] He also noted that partial road pricing can be relatively expensive and cited the

example of the London cordon-pricing scheme which he stated has administration costs which represent approximately 70 per cent of revenue.[115] He also noted, however, that the London scheme had produced a substantial reduction in congestion and now enjoyed widespread public support.[116]

While Professor Clarke did not support the introduction of partial road pricing in the form of cordon schemes for Australia's major cities, he stated that there is a case for the introduction of some partial road pricing, such as the pricing of particular roads, as a 'precursor' to the introduction of comprehensive road pricing in the future. Professor Clarke stated:

> It is not an argument for doing nothing now. We think you can pick some low-hanging fruit, you can go for some cheap partial reforms. … for example, you can price some roads that are obvious you should price. … but then eventually think about that as a precursor for jumping towards comprehensive electronic pricing of all travel in a city, and in fact potentially all travel in a country.[117]

Professor Clarke referred in particular to the road pricing scheme that was introduced in Stockholm in 2006. He noted that the Stockholm cordon pricing scheme was first introduced in the form of a trial which was then followed by a successful public vote. Professor Clarke stated that 'people found the increased convenience was worth more than its cost'.[118]

Professor Clarke also identified the future implementation of comprehensive road pricing as a means of establishing a greater emphasis on cost benefit approaches to road planning and construction and of liberating state budgets from arbitrary federal budget constraints. Professor Clarke stated:

> … what you do is look at that road, and you project forward the kind of revenues you expect to yield from that road, and you build a road that is appropriate, given the level of traffic on that road. What you are trying to do is match up the benefits that you anticipate getting from the road in terms of traffic measured by user costs and then making wise investment decisions.
>
> I think it is a better proposal for the states. It reduces wasteful and frivolous roadbuilding, and it essentially implies some kind of cost–benefit standard when you come to installing new roads. It means that a state government is not bound by a budget allocation … you are projecting forward …
>
> You are not bound by some kind of arbitrary budget constraint, but by what you think the productivity of the road is.[119]

Professor Clarke suggested that although it may yet be 'premature' to support the use of telematic devices to facilitate comprehensive road pricing, there is evidence that the technology is now suitable

for use in congestion charging.[120] He also suggested that the use of telematic devices for road pricing might provide an incentive for motorists to support congestion charging. Professor Clarke stated:

> Now telematic devices can provide parking information in a city. … and you can charge for a parking spot using your credit card on a device. It makes people's lives easier if you can do this. You can extend the time you want at a parking spot, using your telematic device; you do not have to walk back to your car and so on. There are these kinds of reforms.[121]

## Royal Automobile Club of Victoria

Mr Peter Daly, Chief Engineer, Traffic & Transport, Royal Automobile Club of Victoria, at a public hearing in Melbourne on 22 February 2010, stated that he believed Australia will need to introduce a comprehensive road pricing model at some point in the future. He suggested that a future road pricing model could include charges for road access and for road usage, as well as differential charging according to vehicle size.[122] Mr Daly stated:

> So, for instance, if you are driving a small three-cylinder diesel car on a country road, then you would pay much less than somebody driving a SUV or a Hummer down the middle of Bourke Street in peak hour. I think until we have a system whereby people can better understand the cost their travel imposes on others – the externalities, if you like – then behavioural change is somewhat more difficult, so I think that will be coming.[123]

However, Mr Daly also stated that in the 'short term' attempts to better capture the externalities and social costs or road use may occur through 'some sort of modification of excise or a charge on fuel'.[124]

## Stakeholder Views for Road Pricing on Local Roads

The Australian Local Government Association (ALGA), in its submission to the Inquiry, stated that it supports 'any move to link road funding to usage as a sensible economic principle'. Moreover, ALGA stated that a comprehensive road pricing scheme must include local roads 'to avoid the problem of creating a two tier road system which has the potential to encourage 'rat running' on the perceived 'free' roads'. ALGA also stated that any move to road user charging should not result in reduced funding for local roads.[125]

In contrast, Professor Greg Martin, Executive Director, Planning and Transport Research Centre, a collaboration of the four public universities in Western Australia, stated that comprehensive road pricing would not provide a viable means of funding for local roads.

While Professor Martin expressed support for the principle of road pricing, he also stated that:

> ... local government thinks that by road user charging they are going to get enough money to look after the network that they have. If I can use an example which is a simple example but let's say a B-double runs down a wet local road to a farmer's gate and collects the load and comes back, having put trenches in the road, that is one B-double a year, does local government think that road user charges from that truck are going to pay for looking after that bit of road?[126]

Mr Rob Spence, Chief Executive Officer, Municipal Association of Victoria (MAV), at a public hearing in Melbourne on 1 March 2010 also expressed doubt about the feasibility of road pricing in regional areas. Mr Spence stated:

> It blows my mind as to how you could ever run a user-pays system in regional Victoria. It is beyond my mental capacity to understand how you would put it together. I can understand how you can do it on the major arterials, freeways and so on, but the issue we have is that it is going to be around dairy use down in the south-west, timber-intense use at particular times and so on.[127]

## Western Australia

Professor John Taplin, University of Western Australia, Business School – School of Economics and Commerce, at a meeting with the Committee in Perth on 9 April 2010, also expressed support for the principle of congestion charging. Professor Taplin referred to research findings that the levying of charges on specific 'high speed, high standard' urban roads may be preferable to cordon charging schemes. He stated that the same research had found that under cordon charging, the 'rich come out very well, the poor come out very badly'. He stated that such 'distribution problems' can be avoided in a system based on the charging of specific routes, provided that a sufficient choice of unpriced routes is also provided.[128]

Professor Taplin stated that while Australia is likely to see 'extensive' road pricing in the future, it should be implemented on a selective basis because 'if you select the high speed, high standard routes, then a high degree of equity is preserved'.[129] Moreover, Professor Taplin suggested that Melbourne was fortunate in that, because of the location of its existing toll roads, it had 'by default' already established the road infrastructure for such a model of road pricing.[130]

Professor Martin, at the meeting stated that the equity of road pricing is obvious from a taxpayer's perspective. Professor Martin stated that:

> From a taxpayer's point of view as against road users, I think many taxpayers would expect people to pay according to their use.[131]

Professor Martin also stated that different considerations will apply with respect to passenger vehicles, freight vehicles and public transport in terms of the equity of road pricing. Professor Martin commented that:

> If you are looking at road users, you can talk about passenger vehicles, you can talk about freight vehicles, you can talk about public transport. There are three distinct classes of road users. The question is, who benefits and how should that reflect the charging of the use of that road, and the resistance to increases by those different parties.[132]

## ARRB Group

Dr Dimitris Tsolakis, Chief Economist Congestion, Freight and Productivity, ARRB Group, at a public hearing in Melbourne on 12 April 2010, offered comparatively qualified support for the principle of road pricing. He stated that while road pricing may represent one component of a possible rearrangement of the current funding provisions, it would not provide a complete funding alternative and would require careful consideration of both potential advantages and disadvantages. Dr Tsolakis stated:

> In theory it can help, and it has the capacity to improve both efficiency and equity. …
>
> The devil is in the detail with these systems. We need to understand, we need to have good systems, good data and good research to be able to understand what we are doing, because if we do not understand, we can mess it up and the messing up can be costly.[133]

Dr Tsolakis also agreed that demographic differences between Australia's major cities and some of the European cities in which road pricing has been introduced – particularly the relative urban sprawl of Australian cities – are such that overseas road pricing experience should not necessarily be seen as providing a template for Australian cities.[134]

As noted in the previous chapter, Dr Tsolakis' support for the principle of partial hypothecation of fuel excise was also based in part on his agreement with the view that it would be easier and less

expensive to administer than road pricing and that the latter could also prove difficult to explain to the public.[135]

Nevertheless, Dr Tsolakis stated that road pricing may have a particular role to play in metropolitan areas and that the prospects for road pricing will improve over time, subject to effective community engagement, dealing with privacy concerns and reductions in the cost of the necessary technology.[136]

Mr Chris Vardon, Chief Executive Officer, South East Australian Transport Strategy (SEATS), at a public hearing in Canberra, 17 March 2010, also expressed comparatively qualified support for road pricing. Mr Vardon stated that road pricing in the form of a metropolitan congestion tax could have a counterproductive impact on freight and passenger transport. He also stated that road pricing would likely be administratively expensive and should be seen as a means of combating congestion rather than of funding road infrastructure.[137]

## VicRoads

Mr Rob Freemantle, Executive Director, Network and Asset Planning, VicRoads, at a public hearing in Melbourne on 12 April 2010, stated that VicRoads does not have a position on the question of road pricing at the current time but regards it as an issue for further investigation. Mr Freemantle stated:

> VicRoads has not got a position on this at this point in time, but I think it is something that is important that we come to an informed view on. It certainly provides an alternative to the current system of taxation and funding arrangements.
>
> There is an established funding model and a taxation regime in place at the moment, and if you introduce road user charging, then you have to change a fair bit of the way things currently operate.[138]

Mr Freemantle identified the current work by COAG on a national approach to road pricing for heavy vehicles as a possible 'first step' in the introduction of road pricing.[139]

VicRoads and the Department of Transport, in their joint submission to the Inquiry, which was prepared prior to the release of the Tax Report, stated that any recommendation for the introduction of road pricing by the Tax Report would 'require careful design and a proper assessment of impacts on road users'.[140] The submission also stated that any recommendation to introduce variable road pricing (which the review into Australia's Future Tax System has now recommended) would necessitate a 're-design' of the current registration and fuel excise 'funding mix' to ensure price signals that are both transparent and cost-reflective for road users.[141]

The submission also stated that:

> Victoria is committed to working with the Australian Government and other jurisdictions on these and other issues which would benefit from a national approach.[142]

## Discussion and Conclusion

The Committee notes that there is broad consensus between the recommendations found in the 2009 report, *Australia's Future Tax System, Report to the Treasurer – Part Two: Detailed Analysis,* on road pricing and the views of the majority of stakeholders who provided evidence during the course of this Inquiry. As outlined in the preceding sections, a number of stakeholders – including Professor Clarke, the RACV and ALGA – expressed support for comprehensive road pricing. As noted above, however, recommendation 61 of the Tax Report expressed the view that comprehensive road pricing represents a longer-term possibility for the reform of Australia's road management and funding arrangements, which may depend on the cost-effectiveness of new technology.[143]

Following the public release of the Tax Report, a media statement from Mr Michael Deegan, National Infrastructure Coordinator, Infrastructure Australia, stated that:

> By opening up a necessary debate on the cost of road congestion and making observations in relation to freight, the Henry tax review has laid the groundwork for the resolution of some of Australia's most pressing future infrastructure needs.[144]

Mr Deegan further stated that:

> … without addressing road congestion, Australians in the future won't be able to get around our cities, another inhibitor to economic prosperity.[145]

In addition, Infrastructure Australia, in its June 2010 report to COAG, *Getting the Fundamentals Right for Australia's Infrastructure Priorities*, stated:

> Notwithstanding that road user charges (including congestion charging) may prove unpopular in the short term, more serious consideration of such measures will be necessary if the required investment in road and public transport infrastructure is to be delivered.[146]

Further that:

> ... all Australians need to accept that congestion pricing is inevitable if we are going to build economically and environmentally sustainable cities.[147]

As the Committee discussed in Chapter One, congestion has serious implications for both economic efficiency and equity in terms of access to jobs and other economic opportunities. This was recognised by Infrastructure Australia, in its recent media statement, which stated that the Tax Report:

> ... had increased the need for a debate on road congestion, the economic and social cost of congestion and the potential of road congestion charges to create efficiency and equality on metropolitan road usage.[148]

The Committee notes the views of those stakeholders who stated that comprehensive road pricing may have the potential to improve the economic efficiency and equity of the current road funding arrangements.[149] However, the Committee has not made a conclusive finding in this regard as it considers that further research is required. The Committee also notes that the possible future introduction of comprehensive road pricing is likely to depend on national developments, particularly the further progress of the COAG heavy vehicle charging scheme.

Moreover, there is a range of emerging measures available to state governments to more effectively manage demand for the roads, which may render the introduction of comprehensive road pricing – for the purposes of demand management – unnecessary for some time. For example, VicRoads has recently established the SmartRoads program which is aimed at changing the use and operation of Melbourne's road network to optimise the use of existing roads. The SmartRoads program is designed to manage competing interests for limited road space by giving priority use of the road to different transport modes at specific times of the day.[150]

SmartRoads utilises a set of guiding principles to establish the priority use of roads according to transport mode, time, and place of activity. These priority movements are then assigned to arterial roads across Melbourne's road network to form the SmartRoads Network Operating Plan. Local SmartRoads Network Operating Plans have also been developed for each of Melbourne's 31 local government areas.[151]

Specific measures under SmartRoads include:

- encouragement of pedestrians by improving pedestrian access into and within activity centres during periods of high demand;

- priority for trams and buses on key public transport routes linking activity centres during morning and afternoon peak periods;

- encouragement of cars to use alternative routes around activity centres;

- encouragement of cycling through further development of the bicycle network; and

- although trucks will have complete access to the arterial road network, they will have priority on important transport routes lining freight hubs and at times of reduced competition with other transport modes.[152]

The Committee considers that any consideration of the feasibility of congestion charging in Australia should occur at a national level by the Commonwealth Government. This is primarily because such a scheme would need to be based on the use of nationally consistent technology.

The Committee also notes that although the report on the Tax Review recommended that governments analyse the potential benefits and costs of introducing congestion charging on existing tolled roads or lanes, it also suggested that the wider application of road pricing may require new technologies.[153] The Committee therefore considers that it would be preferable to await the possible development of such future technologies ahead of any consideration of congestion charging by the Commonwealth Government.

The Committee wishes to emphasise that, should the issue of congestion charging be considered at a national level in the future, very careful consideration would need to be given to its potential effects on equity. The Committee is strongly of the view that if a national congestion charging scheme were to be introduced in the future it should not occur to the disadvantage of any Australian communities or road users. Indeed, the possibility of such disadvantage would be a compelling argument against the national introduction of congestion charging.

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Chapter

6

# Road Safety

## Introduction

There were more than 1,500 fatalities on Australia's roads in 2009.[1] While the number of road fatalities has reduced by more than half since 1970, road crashes remain one of the leading causes of loss of life in Australia.[2]

Approximately 30,000 people are seriously injured, requiring hospitalisation, in road crashes every year.[3] The rate of serious injury has increased in recent years, rising by 14% during the period 2000–01 to 2006–07.[4] This figure reflects the absence of any real improvement in rates of serious injury among car drivers and passengers during the period, combined with significant increases in injury rates for motorcyclists and bicyclists. Although the rates of serious injury for pedestrians declined by 11 per cent between 2000–01 and 2002–03, there were only minor variations in the rate from 2002–03 to 2006–07.[5]

Road crashes impose a significant financial burden on the Australian community. A conservative estimated annual economic cost of road crashes across Australia is $18 billion per annum.[6] However, a report published by the Australasian Railway Association, in August 2010, has estimated that the annual cost of road crashes is more than $35 billion.[7]

The condition of our road infrastructure, and roadsides, is recognised as one of the most important factors in determining road safety outcomes. Indeed, safer road infrastructure is increasingly regarded as the single most important factor in reducing road trauma, ahead of driver behaviour, speed management and vehicle safety.[8] Federal-state road funding does not acknowledge the significance of safer road infrastructure.

## The Safe System

In recent times, the Safe System approach has been recognised internationally as the preferred approach for road safety. In 2008, the International Transport Forum, an inter-governmental body within the Organisation for Economic Co-operation and Development (OECD) in its report, *Towards Zero: Ambitious Road*

*Safety Targets and the Safe System Approach – Summary Document*, recommended that all countries should move towards the adoption of a Safe System approach to road safety.[9]

The aim of the Safe System approach is to ensure that:

> ... if an alert and compliant road user makes an unintentional error, the transport system would be engineered in such a way that the errant driver will not suffer serious injury or death.[10]

Mr Peter Daly, Chief Engineer, Traffic & Transport, Royal Automobile Club of Victoria (RACV) at a public hearing in Melbourne on 22 February 2010, described the Safe System principles as representing an approach to road funding and safety that 'calls for safer drivers in safer cars on safer roads at safe speeds'.[11]

## Safe System in Australia

The Safe System approach was first adopted nationally in Australia, with effect from 1 January 2005, under the Australian Transport Council's (ATC) *National Road Safety Action Plan for 2005 and 2006,* one of the two-yearly Action Plans made under the ATC's National Road Safety Strategy.[12] The Safe System approach has since been firmly established in Australia through subsequent Action Plans and through the recent road safety strategies developed by the individual states and territories.[13]

For example, the Safe System approach was formally adopted by Victoria in 2008 with the introduction of the Victorian Government's *Arrive Alive 2008-2017* strategy. Under the strategy, the Victorian Government stated that it was committed to the principles of the Safe System approach and to making it the basis of future actions in road safety.[14]

The Victorian Safe System approach is based on the three central strategies of:

- safer roads and roadsides;
- safer vehicles; and
- safer road users.[15]

The management of speed, both through promoting road users' compliance with speed limits and matching speed limits to the relative safety of the road infrastructure, is also an underlying component of the Safe System approach.[16]

Specific Safe System measures relevant to safer roads identified in the *National Road Safety Action Plan 2009 and 2010* include:

- design, construction and maintenance of the road system (that is, roads, vehicles and operating requirements) to ensure that the forces experienced by the human body in crashes are generally sufficiently low to prevent fatal or debilitating injury;
- improving roads and roadsides to lessen the risk of crashes and reduce injury in the event of a crash. On higher speed roads, measures include dividing traffic, designing 'forgiving' roadsides (for example, the use of barriers, construction of wider shoulders and increasing the space between the roadside and objects such as trees and poles), and providing clear driver guidance. In areas with more vulnerable road users or high collision risk, key strategies include speed management, complemented by road and roadside treatments to reduce crash forces;
- managing speeds according to the relative risks on different parts of the road system;
- conducting research into the most cost-effective interventions for specific circumstances; and
- promoting public understanding and support for the Safe System approach, and public participation in the goal of a safer road system.[17]

## Vision Zero

The report *Towards Zero: Ambitious Road Safety Targets and the Safe System Approach*, states that a Safe System approach is 'the only way to achieve the vision of zero road fatalities and serious injuries'. The OECD report describes such a vision as 'aspirational' but it has also received formal recognition in road safety policies of the Netherlands and Sweden, both of which have also adopted a Safe System approach.[18]

### Western Australia

In March 2009, the Government of Western Australia also gave formal recognition to the vision zero approach through its endorsement of the Road Safety Council's recommended road safety strategy for 2008–2020, *Towards Zero*. The strategy states that:

> Our long-term vision is of a road transport system where crashes resulting in death or serious injury are virtually eliminated.[19]

The strategy identifies the Safe System as its foundation and as providing the strategies that will enable progress towards the ultimate goal of zero deaths and zero fatalities on Western Australia's roads.[20] The strategy states that although it will not be:

> … practical to achieve zero serious injuries on our roads by the year 2020, but we do not accept any death or serious injury as inevitable.[21]

It also states that if fully implemented, the strategy will prevent an estimated 750 fatalities and 10,250 serious injuries on Western Australian roads between 2008 and 2020.[22]

The Committee notes that the ultimate goal of the Safe System approach is the vision of zero deaths and fatalities on our roads. Accordingly, the Committee considers that the continued implementation of Safe System principles across Australia represents the best strategy for ensuring continued progress towards the goals of vision zero.

## The National Road Safety Strategy

The *National Road Safety Strategy 2001-2010* (the Strategy) was established by the ATC in November 2000. The Council comprised federal, state and territory transport ministers and included a local government observer.[23]

The Strategy – a framework designed to complement the road safety strategies of state, territory and local governments – established a target of a 40 per cent reduction in annual road fatalities by 2010. This is equivalent to an estimated reduction in the annual road fatalities per 100,000 population from 9.3 (the 1999 benchmark rate) to less than 5.6 in 2010.[24]

The ATC decided that two-year Action Plans should be developed, articulating the specific steps required to achieve the goals of the Strategy. The *National Road Safety Action Plan 2009 and 2010* is the fifth and final Action Plan under the Strategy. It identified the main issues expected to influence road trauma levels and set out the priority areas for action in 2009 and 2010.[25] The 2009 and 2010 Action Plan noted that approaches to improving road safety in Australia will continue to be directed by the Safe System approach.[26]

As noted, the Strategy described improvements to the safety of Australia's roads as 'the single most significant achievable factor in reducing road trauma'.[27] Accordingly, the Strategy estimated that approximately half (19 per cent) of the targeted 40 per cent reduction in road fatalities by 2010 would be achieved by improving the safety of the roads, compared to reductions of nine per cent for

improved road user behaviour, ten per cent for improved vehicle occupant protection; and two per cent from the use of new technology.[28]

The 2009 and 2010 Action Plan also identified the following as those actions which would have the highest impact in creating safer roads and roadsides:

- Establish a consistent risk-based approach to investment in all roads and develop programs and trials for targeted safety upgrades of higher-risk sections;
- maintain or increase the current level of investment in black spot and other safety-targeted road programs;
- implement route risk assessment and treatment programs for major routes (including hazard removal, speed limit changes, shoulder sealing, audible edge lining and protective barriers) to address the problem of run-off-road crashes;
- develop road-to-vehicle technology solutions to address single vehicle run-off-road crashes and other rural crash problems, and
- adopt the Safe System approach as a priority from commencement to completion of road construction and maintenance.[29]

The 2009 and 2010 Action Plan also recommended that governments at all levels should review the balance between general road investment and funding for safety-focused works, with the aim of making road safety a mainstream priority for all road investment decisions.[30]

The Strategy stated that road safety is enhanced both through spending on general road improvements and maintenance – including the construction of new roads, which are typically safer than older roads – and spending on the treatment of black spots.[31] Black spots and black lengths are locations or sections of road which have experienced high numbers of reported casualty crashes.[32]

The ATC's *National Road Safety Action Plan 2009 and 2010* reaffirmed the road safety benefits of:

- general investment in road infrastructure;
- general investment in maintenance and improvement;

- targeted investment in road safety projects, including black spot treatments and other 'low-cost, high-effectiveness treatments' to stretches of road.[33]

The 2009 and 2010 Action Plan noted that the economic benefit of such expenditure is an estimated average of approximately $5 for every dollar spent and that a $287 million program would prevent approximately 24 deaths each year. The Action Plan also stated that, if such expenditure is sustained over four years, such a program would reduce annual deaths by nearly 100. The Action Plan did not specify the relative proportions of investment in general and targeted road expenditure that would be required to achieve such an outcome.[34] However, the Committee notes that *The National Road Safety Strategy 2001-2010,* cited research which found that investment on black spot treatments, can save approximately ten times as many lives as the same level of investment in general road improvements.[35]

The 2009 and 2010 Action Plan states that the original national target of a 40 per cent reduction in Australia's road toll will not be achieved, with the average rate of reduction in national road deaths currently below the rate required to meet the target.[36] For the calendar year 2009, the national rate stood at 6.8 fatalities per 100,000. Victoria, however, had reduced its rate to 5.3 fatalities per 100,000.[37]

Mr Mike Harris, Chief Executive, Australian Automobile Association, at a public hearing in Canberra on 17 March 2010, attributed part of Victoria's success to the remedial work that has been carried out on improving the safety of existing roads. Mr Harris stated:

> The national road safety strategy had a target of getting road fatalities down to just under 6 per 100 000, and Victoria is the only state that has actually got close to that. It is partly to do with the fact that it has done a lot of this work retrospectively on its roads. It is not the only reason; you also have stronger policing than most other jurisdictions.[38]

## New National Road Safety Strategy

With the completion of the strategy, the Australian Transport Council has committed to the development of a new National Road Safety Strategy, which will apply for the next ten year period. It is anticipated that the Safe System approach will be central to the new strategy. It is also anticipated that the new strategy will place a stronger emphasis on monitoring the implementation of agreed priority measures. The newly established National Road Safety Council (NRSC) will play an important role in developing the new strategy.[39]

The new Council, which held its inaugural meeting in February 2010, is an advisory body to the ATC and reports to the ATC on road safety implementation issues. The Council was established with the primary goal of contributing to a reduction in death and serious injury on Australian roads through better implementation of road safety measures, including those in the current and future NRSS and supporting Action Plans, and as directed by the ATC. The Council was also established with the aim of raising the profile of road safety as a major public health issue.[40] As a result, the Council has appointed five high profile Australians as National Road Safety Ambassadors to promote the work of the Council, by focusing community attention on road safety issues.[41]

## AusRap

The Australian Road Assessment Program (AusRAP) is part of a worldwide road assessment program established by the I-RAP company.[42]

AusRAP publishes risk assessment maps and safety star ratings for roads within the National Network – a 5 star rating is assigned to the safest roads and a 1 star rating is assigned to the least safe road.[43] The RACV, as a member of AusRap, uses the same methodology to assess state roads in Victoria and publishes star rating maps on the Victorian road network.[44]

Historically, AusRAP's work has primarily involved post construction assessment of roads to identify safety deficiencies and to suggest corrective measures. However, AusRAP has also recently conducted a preconstruction assessment for the Perth to Bunbury road.[45]

AusRAP produces two types of risk assessment maps:

- maps which show the total number of casualty crashes over a given length of road; and
- maps which show the casualty crash rates per vehicle kilometre travelled.[46]

AusRAP star ratings are aimed at providing a measure of the level of safety that is 'built-in' to a given road and to therefore enable sections of road that are likely to be risky, to be identified before a crash occurs. A star rating is intended to provide a measure of both the likelihood and severity of a crash, on a given section of road within the National Network.[47]

AusRAP's risk assessment maps and star ratings are available to the public online at: http://www.ausrap.org/ausrap/.

Mr Mike Harris, Australian Automobile Association (AAA), and a Director of I-RAP, at a public hearing in Canberra on 17 March 2010, stated that the AusRAP star rating system provides a cost benefit analysis tool for road infrastructure safety measures. Mr Harris stated that:

> You can cost the countermeasures and therefore work out the benefit of investing in those countermeasures from the point of view of the reductions in crashes and therefore the money saved as a consequence of those reductions.[48]

Mr Harris noted that every increase in the rating of a road by 1 star, effectively halves the financial cost of crashes on that road.[49] Crash costs include the costs due to loss of life and serious injury.

Mr Harris stated that more than 50 per cent National Network roads currently have a rating of less than 4 stars and that a significant proportion have a rating of only 2 stars. He stated that the AAA Board considers this situation to be unacceptable.[50]

Mr Harris concluded that an investment of $24 billion in the National Network would eliminate all 2 star roads from the National Network, reduce the percentage of 3 star roads and increase the percentage of 4 star roads.[51] The Australasian College of Road Safety, in their submission to the Inquiry, note that AusRAP has estimated that such an investment would reduce crash costs by 19 per cent and prevent 46 deaths and 800 serious injuries each year.[52] Mr Harris stated such an investment would probably require a five year work program.[53] The Committee notes that this would amount to approximately $4.8 billion per year in current dollars.

Mr Harris also stated that a number of 'countermeasures' can be used to improve the star ratings of roads but that the most effective measures are road duplication (separating traffic flows), shoulder widening and the removal of obstructions on the shoulders. Mr Harris noted that:

> Obviously duplication is the best way of ensuring a safe road, because the biggest causes of fatality crashes in particular are head-on collisions or running off the road and hitting an object. The two biggest components to improving the star rating of a road are to duplicate the road so you avoid the prospect of a head-on collision, and to widen the shoulders of the road and take away obstructions on the shoulders so that if you do run off the road you do not hit something and you have time for the car to slow down and stop safely.[54]

Mr Harris stated that while the AAA considers that a minimum rating of 4 stars should apply to all roads within the National Network,

such a minimum rating is not necessary for all state and local roads, concluding that:

> We are not saying that every road in the country has to be a 4-star, or better, road; it very much depends on how much traffic is on the road, what sort of traffic is on the road, how often it is used and for what purpose it is used. … if you have only got local traffic, and not much of it, then you do not need a 4-star road, necessarily. You still need a safe road, but you do not necessarily need a duplicated road with all the other bells and whistles that a 4-star road has. It is horses for courses in many respects.[55]

However, Mr Peter Daly, Chief Engineer, Traffic & Transport, Royal Automobile Club of Victoria (RACV), at a public hearing in Melbourne on 22 February 2010, stated that all National Network roads should have a 5 star rating and noted that this represents AusRAP's long-term aspiration. Mr Daly also noted that all state roads should be upgraded to a 4 star minimum in the long term and that this could be achieved very cost effectively through treatments such as improved intersections, better roadsides, better line marking and improved overtaking opportunities. He described a 5 star road as one on which a safe driver in a safe car should not be killed or seriously injured in the event of a crash.[56]

Mr Daly commented that under the current federal and state funding arrangements it could take ten to 20 years to realise such improvements to the National Network and to state roads. However, Mr Daly noted that an immediate increase in investment in safer road infrastructure would deliver both immediate road safety benefits and a greater total reduction in road trauma over time.[57]

Mr Daly also stated that upgrading a highway to a freeway can result in a road that is ten to twenty times safer. He noted that although the RACV had previously experienced difficulty in conveying the road safety benefits of such upgrades to the public, AusRAP now provides an effective communication tool for this purpose.[58] Mr Daly also noted that AusRAP provides an effective means of communicating the integral role of road infrastructure within a Safe System approach to road safety. Mr Daly concluded that:

> Whilst most drivers know what a safe driver is – a 5-star driver ... and drivers increasingly understand what it is to have a safe car through the ANCAP star-rating program, the discussion that we have had over the years on safer roads has been one pretty much between engineers and decision makers. It is a difficult discussion to have [with the wider community], because everybody drives a car and everybody is an expert on the roads, but often the things that kill people are the things that they do not see. It is the roadside infrastructure – or lack of roadside infrastructure; dangerous intersections – which to the

> travelling public do not appear to be hazardous, but in fact they actually are. AusRAP provides that simple method of communication with the public in star ratings about what makes a road safe and why it makes it safe.[59]

Mr Daly described the use of risk assessment models such as AusRAP, as representing a more proactive approach to improving the safety of existing roads than the historical reliance on black spot programs, which treated sections of road with a known history of fatal crashes.[60] Mr Daly concluded that:

> What we have only done more recently is to start applying the lessons from those programs to what you might call proactive safety, where we start putting in wire rope barriers along lengths of road that currently do not have crashes but we know it is only a matter of time before they do. On many roads, particularly with hazardous road signs, it is not a matter of if these crashes happen, it is a matter of when these crashes happen. That is certainly one part of the answer.[61]

Mr Daly also stated that increased community awareness of the factors involved in road infrastructure safety, through tools such as AusRAP, also promotes community understanding of the importance of speed limits.[62] The Committee notes by way of example that public awareness of the low star rating of particular roads may lead to increased caution and therefore greater compliance with speed limits on such roads.

The Commitee considers that the community is not fully aware of AusRAP and that there is a need for greater public knowledge of the valuable information that is available on its website. Accordingly, the Committee considers that there is a need for a public information campaign to ensure that drivers ultimately become as aware of AusRAP's star ratings and risk maps as they have become of the Australasian New Car Assessment Program (ANCAP) star ratings for vehicle safety in recent years.

**Recommendation:**

**8. That the Minister for Roads and Ports, through the Council of Australian Governments, advocate the allocation of state and federal funding for a series of public information campaigns on the star ratings and risk maps available from the AusRAP website.**

## Types of Infrastructure Treatments

A range of road infrastructure features and treatments can be included at the time a road is first constructed or in subsequent retrofitted work, which can have a significant impact on reducing levels of road trauma. These vary from low cost options, such as line-marking to high-cost options such as intelligent transport systems (ITS).

Mr Peter Daly, RACV, also noted there is a range of available treatments, from the simple and low-tech to high technology solutions, that can improve the safety of roads and which have a higher cost benefit than upgrading a road to a freeway standard.[63] Mr Daly provided examples such as:

> ... run-off-road crashes, lane departure systems – vehicle-based ones or the road-based ones – can be very effective, as can things like vibraline or audio-tactile edge lines. Sealed shoulders, for instance, can reduce the number of run-off-road crashes by up to 60 per cent.[64]

Further that:

> The key I think is that there is a range of infrastructure solutions. When we are talking about improving the safety of our national highways, we are not only talking about duplication to freeway standard. There are a number of technology and infrastructure solutions, such as better line markings, sealed shoulders, better intersections and better roadside protection, that can have quite significant benefits, particularly on those lower volume parts of the [National ] AusLink Network where in the short term it probably would not be feasible to upgrade those to freeway standard.[65]

Ms Samantha Cockfield, Manager, Road Safety, Transport Accident Commission (TAC) referred to the funding provided by Victoria's TAC over the years to enable the retrofitting of a range of safety treatments to high speed roads, particularly in rural and regional areas, which had proven effective in preventing or mitigating run-off-road crashes. Ms Cockfield noted, however, that run-off-road and cross-over crashes remain a major source of death and injury in Victoria.[66]

## Barriers

Ms Cockfield informed the Committee about the benefits of wire rope barriers and of a measure that is being implemented in Sweden, commonly known as two-plus-one barriers. Wire rope barriers in the middle lane, and on roadsides, can protect drivers from crossover crashes and crashing into trees and other solid objects.[67]

## Two-Plus-One Barriers

Ms Cockfield stated that there is a strong case for the adoption of innovative treatments such as the 'two-plus-one' approach and the greater use of flexible wire rope barriers.[68]

Ms Cockfield stated that the two-plus-one treatment is typically applied to single lane highways and freeways, which are converted to two lanes of traffic operating in one direction and another lane operating in the opposite direction, divided by a barrier system such as wire rope, which is typically also used on the roadside. The configuration is reversed every few kilometres.[69] Ms Cockfield stated that the two-plus-one treatment has:

> ... proved highly effective in terms of crash reductions, particularly in Sweden, and [they] are seeing somewhere between a 70 and 90 per cent reduction not just in crashes but in deaths on those roads. In fact it is not the crashes that are reduced, it is the injuries that are reduced. Part of the success of this type of treatment is that it does not necessarily reduce crashes, it actually reduces impact by absorbing energy. When we go back to the safe system, one of the known factors is that the human body can only take so much energy absorption, and it is a system that works within those safe system principles.[70]

## Wire Rope Barriers

Ms Cockfield also referred to the installation of wire-rope barriers down the centre and along the sides of high speed roads, to prevent head-on and run-off-road crashes, as a cost effective option which increases safety and maintains mobility. She explained that head-on crashes on high speed roads are usually fatal due the speeds of the vehicles colliding:

> If you have two vehicles approaching each other at 100 kilometres an hour, approaching very fast, you have got very little reaction time, and if a crash occurs, it is usually fatal, because even with a bit of time to slow down, the energy between two cars approaching and hitting at 80 kilometres an hour each is a 160-kilometre impact speed. [71]

Ms Cockfield also noted that this treatment provides an attractive option compared to road duplication both in terms of cost and timeliness.[72]

The Committee notes that in October 2009, the Victorian Government announced a $3.7 million trial of centreline wire rope safety barriers on the South Gippsland Highway, with the wire rope safety barrier installed along the centreline of undivided road.[73] In the event of a successful outcome of the trial, the Committee considers that such safety treatments should be encouraged in

future, as a low cost option for improving the safety of Victoria's roads.

**Recommendation:**

**9. That, in the event of a successful outcome of the trial of centre-line wire rope safety barriers on the South Gippsland Highway, the Minister for Roads and Ports ensures the installation of wire rope barriers as a low cost measure for improving the safety of Victoria's roads in the future.**

## Intelligent Transport Systems

Intelligent Transport Systems (ITS) refers to the application of computer and communications technologies for transport infrastructure and vehicles, to ease mobility and improve safety.[74]

ITS can be either vehicle-to-vehicle or vehicle-to-road based. Vehicle-to-road based ITS systems require the retrofitting of existing road infrastructure or the incorporation of ITS technology into the design and planning of new roads.[75]

Ms Cockfield, Manager, Road Safety, TAC, at the public hearing, stated that one of the constraints on the promotion of ITS and speed adaptation assistance devices in Victoria, in the past, was the absence of a sufficiently accurate digital electronic speed map of the state.[76] Such maps provide the foundation for the range of potential ITS safety benefits. Ms Cockfield informed the Committee that such a map had recently been completed by VicRoads with a funding contribution from the TAC of approximately $2.6 million.[77] Ms Cockfield also stated that the Commonwealth Government, through its funding arrangements with the states, should ensure that the currency of digital maps is maintained, as this is an ongoing cost that arises with changes to road infrastructure. Ms Cockfield suggested that funding for road upgrades should be conditional on an agreement to update the associated digital maps, to ensure speed adaptation devices remain accurate.[78]

Ms Cockfield noted that speed adaptation devices is a valuable tool for informing drivers of the speed limits, both the posted speed limit and the speed of any oncoming vehicles.[79]

Ms Cockfield also commented that vehicle-to-road based ITS systems offer a range of safety and mobility benefits in addition to the prevention of speeding, stating that:

> There are so many opportunities … where emergencies on side-of-road … can easily be relayed through to emergency dispatch centres, where we become

> aware of crashes much earlier and the exact locations so that emergency services can get to them, people can be warned about dangerous or known black spots such as railway level crossings et cetera, and there are also a lot of mobility benefits to these types of systems as well.[80]

In addition, Ms Cockfield referred to the potential benefits of vehicle-to-road ITS for vulnerable road users, such as information warning drivers of pedestrians approaching the road and information on tight curves ahead for heavy vehicles and motorcyclists. Ms Cockfield stated:

> … that is the sort of information that can be relayed to them, basically saying, 'There is a tight curve coming up ahead; you really need to slow down'.[81]

Ms Cockfield stated that the key to the development of ITS systems is the adoption of a nationally consistent approach to ITS under the federal-state funding arrangements:

> … one of the ways that can be done is through these federal-state funding arrangements to make sure, for example, in the first instance, that, as part of the funding arrangements, when you get to build a new piece of road you make sure that all the speed limits, the GPS settings, are integrated into your speed maps.[82]

Mr Lauchlan McIntosh, President, Australasian College of Road Safety (ACRS), at the public hearing in Canberra on 17 March, also emphasised the importance of a nationally consistent approach to developing the infrastructure required to support ITS.[83]

Similarly, Mr Jon Gibson, Director of Policy and Strategy, Office of Road Safety, Western Australia, at a meeting in Perth on 9 April 2010, stated that ITS has a critical role to play in future road safety improvements and that there is a need for greater national leadership in this area. Mr Gibson stated that the role of ITS is becoming increasingly critical:

> … is becoming absolutely paramount that technology is able to enhance safety, particularly if you are talking about rural roads and intersections and things like that. You have a whole range of technology that can warn approaching motorists. You have technology that can work with a driver to warn them that he or she is drifting off to the side. There is an increasing need to factor in the technology, or the consideration of the technology with vehicles and the infrastructure to talk to each other and take that into consideration. It is underdone.

> One of the things we are lacking is national leadership in relation to that. There has been some work done but it is progressing at such a fast rate, particularly in Europe and the US, Australia is well behind.[84]

The Committee considers that ITS will have a significant role to play in reducing road fatalities and serious injuries in the years to come and agrees that this is an area in which a national approach is required. As such, the Committee considers it is important that the federal-state funding arrangements should promote the uptake of ITS technologies across the road network by making future funding conditional on installing and updating digital maps.

**Recommendations:**

10. **That the Minister for Roads and Ports, through the Council of Australian Governments, advocate that funding for all new road construction under the federal-state road funding arrangements be made conditional on the integration of all speed limits and GPS settings into applicable electronic maps.**

11. **That the Minister for Roads and Ports, through the Council of Australian Governments, advocate the establishment of a federal-state road funding program dedicated to ensuring that digital maps are kept up to date.**

## Reforming Federal Funding for Road Safety

Mr Peter Daly, Chief Engineer, Traffic & Transport, RACV, at the public hearing in Melbourne on 22 February 2010, stated that there is a need for the Commonwealth Government to increase its funding for improvements to the safety of Australia's roads. Mr Daly stated that Victoria:

> ... has spent an enormous amount of money on road safety, probably more than any other state, and perhaps in some programs more than the rest of the states combined – Victoria has a very proud record of funding road safety – we would like to see safety being given much more of a guernsey at the federal level when it comes to funding decisions.[85]

The Committee notes that there are essentially two forms that such increased federal funding could take: funding for remedial works on existing roads; and funding to ensure that a high level of safety is 'built-in' at the time of road construction.

# Remedial Road Infrastructure Safety Treatments

## Federal Requirements

The Black Spot Program is the Commonwealth Government's only funding program that is solely dedicated to improving the safety of roads and roadsides.

In 2010-11, the Commonwealth Government will allocate $59.5 million to the Black Spot Program. This amount is equivalent to less than three per cent of estimated federal funding for road construction and maintenance in 2010-11 of approximately $2.1 billion.[86] While the Commonwealth Government will also allocate an estimated $20 million to the Heavy Vehicle Safety and Productivity Program, this funding is not dedicated solely to road safety improvements.[87] Moreover, VicRoads and the Department of Transport, in a joint submission to the Inquiry, stated that although federal funding is provided for major network improvements and maintenance on the National Network, there is no federally-funded program specifically for road safety treatments on roads on the National network.[88] This situation is in contrast to the significant funding for safer roads and roadsides under Victoria's Strategic Road Infrastructure Program, discussed below.

In relation to federal road funding under the Nation Building Program, the Committee notes that an estimate of the safety performance and crash potential of a proposed National Network or off-network road project is a requirement of all funding applications by the states to the Department of Infrastructure, Transport, Regional Development and Local Government. Under the *Notes on Administration for the Nation Building Program*, the states are required to submit a proposal for each proposed project in accordance with the *National Guidelines for Transport System Management*, which were endorsed by the Australian Transport Council in November 2006 and therefore pre-date the Nation Building Program.[89]

Under the *National Guidelines for Transport System Management*, proponents are required to estimate dollar values and percentage values for specific benefits as part of a benefit-cost analysis for each project. This includes an estimate of the safety benefits. There is no requirement, however, that the safety benefits should represent a minimum percentage of the total estimated benefits. There is also no requirement that proponents include specific safety treatments in a given project proposal.[90]

The Department of Infrastructure, Transport, Regional Development and Local Government appraises each proposal, and requests additional information if necessary, before advising the Minister to approve or reject the project.[91]

## Victoria's Safer Roads Infrastructure Program

The Transport Accident Commission (TAC) has funded Victoria's Safer Roads Infrastructure Program (SRIP), since its commencement in 2004-05, which has the specific aim of maximising the reduction of fatalities and serious injuries through infrastructure improvements to the state's arterial roads. VicRoads will receive $683.9 million from the TAC over the ten year period commencing 2007-08. This is equivalent to an annual average of more than $68 million.[92]

The program is funded by the TAC, from insurance premiums paid by Victorian drivers, and delivered by VicRoads.[93] The current SRIP strategy targets run-off-road crashes through the installation of safety barriers – including wire rope barriers – shoulder sealing and audio-tactile edge lines. Intersection crashes are addressed through the installation or enhancement of traffic signals, roundabouts, improved delineation and other treatments.[94]

In a joint submission to the Inquiry, VicRoads and the Department of Transport, stated that an increasing proportion of SRIP funds are directed towards safety improvements on the National Network[95] since there is no federally-funded program specifically for road safety treatments on the National Network.

Mr Peter Daly, RACV, at the public hearing in Melbourne on 22 February 2010, expressed strong support for the SRIP program. Mr Daly stated that:

> One thing I will say though is to reinforce the role that the Transport Accident Commission plays in road safety in Victoria and to say that it is very rare around the world to have a body like the TAC to improve the safety of roads or to fund improving the safety of roads. Victoria is often commented on internationally extremely favourably because we have a TAC and that TAC willingly sees the business case for improving infrastructure but also for addressing some of the behavioural issues through campaigns and through enforcement, as well as being involved in the vehicle engineering space.[96]

Mr Daly described the work of the SRIP as representing a more proactive approach to addressing the safety of road infrastructure than the Victorian State Black Spot Program. Mr Daly stated:

> Victoria has long been a leader in Australia, and arguably internationally, in addressing crashes on the network that are already occurring through what we call the black spot programs. We have had a number of black spot programs over the years which target countermeasures and fund those countermeasures at locations where lots of people have been killed. That has been very, very successful.

> What we have only done more recently is to start applying the lessons from those programs to what you might call proactive safety … along lengths of road that currently do not have crashes but we know it is only a matter of time before they do. On many roads, particularly with hazardous road signs, it is not a matter of if these crashes happen, it is a matter of when these crashes happen. That is certainly one part of the answer.[97]

Victoria is not alone in shifting from a focus on remedial works to eliminate black spots to a focus on strategic road infrastructure works across the network. The ACT Government Department of Local Government, in its submission to the Inquiry, stated that the ACT, like other jurisdictions, is now focusing on 'wider road safety programs' rather than the 'traditional approach' of the Federal Black Spot Program.[98]

The ACT Government stated that it would also like to see a change in the Federal Government's spending priorities for road infrastructure safety. The submission stated:

> Over time, we plan to raise the Federal Government's awareness of how funding under the Black Spot Program could possibly be expanded. It is suggested that it would be worthwhile to consider a more proactive and holistic approach rather than a simple focus on treating crash locations with Black Spot treatments.[99]

## Discussion and Conclusion

The Committee considers that the current level of federal funding for remedial treatments to improve the safety of road infrastructure is inadequate. This is highlighted by the fact that annual average funding under Victoria's SRIP program is currently greater than the annual amount of national funding under the Federal Black Spots Program. The Committee considers that Victoria's SRIP program provides a clear model for the future of investment in improving the safety of road infrastructure and that there is a clear need for federal funding for the National Network to move beyond a focus on black spots alone to the more proactive approach exemplified by the SRIP.

Mr Bob Phillips, Director, Budget and Financial Planning, Main Roads Western Australia, at a meeting with the Committee in Perth on 9 April 2010, stated that the use of a benefit cost ratio approach in the allocation of federal road funding can disadvantage Western Australia because of the comparatively lower volumes of traffic on its roads compared to states with higher traffic volumes, such as Victoria, New South Wales and Queensland.[100]

Similarly, Mr Mike Cosson, Manager Project Programming, Main Roads Western Australia, at the meeting in Perth, stated that reliance by Infrastructure Australia on a benefit cost ratio analysis had made federal funding difficult to obtain for remote community access roads in Western Australia.[101]

The Committee considers that the reliance on a benefit cost ratio approach in assessing the eligibility of projects for federal or state road funding creates a funding disadvantage for local roads. This is because many local roads have a lower volume of traffic than National Network and state roads. Many local roads in rural and remote areas, particularly unsealed roads, cannot achieve a sufficient benefit cost ratio to qualify for federal funding for safety upgrades. Safety works on such roads would generally also not qualify for funding under the SRIP in Victoria because they would typically score benefit cost ratios of less than three.

However, the Committee is strongly of the view that there is a community service obligation to ensure ongoing improvements to the safety of local roads. While the Committee acknowledges that a benefit cost ratio approach is an important tool in ensuring the equitable distribution of finite funding, it is also of the view that there is an obvious need for additional federal funding to improve the safety of local roads across the country. For example, the Committee notes that during the period 2004 to 2008 approximately 30 per cent of road fatalities in Victoria occurred on local roads.[102]

The current level of funding for the Black Spot Program is insignificant compared to annual federal expenditure on National Network construction and maintenance. As noted above, federal funding under the Black Spot Program in 2010-11 represents less than three per cent of the estimated value of federal funding for road construction and maintenance on the National Network. The Committee therefore considers that there is a need to significantly increase the level of funding under the Federal Black Spot Program and to require that this funding is dedicated to improving the safety of local roads in all states.

The Committee considers that ten per cent of the value of annual federal construction and maintenance expenditure on the National Network would be required to make a significant improvement to the level of safety on local roads. The Committee also notes that, as the Australasian College of Road Safety stated in its submission to the Inquiry, there is an increasing world-wide move to set aside ten per cent of road funding for safety related works.[103]

The Committee notes that an increase in Federal Black Spot funding of this magnitude would also allow the currently restrictive eligibility conditions for Federal Black Spot funding to be relaxed. Currently, eligibility for Black Spot funding for individual sites, such as intersections or short road sections, requires a history of at least

three casualty crashes over a five year period.[104] An increase in Black Spot funding to an amount representing ten per cent of annual construction and maintenance expenditure on the National Network would significantly increase the number of black spot sites eligible for funding. Over time, it would therefore result in a significant decrease in the level of road trauma.

**Recommendation:**

**12. That the Minister for Roads and Ports, through the Council of Australian Governments, advocate an increase in the annual level of Federal Black Spot funding to an amount representing ten per cent of the annual value of federal construction and maintenance expenditure on the National Network. The Federal Black Spot funding conditions should also require that states dedicate all such funding to local roads.**

The Committee notes that Victoria is fortunate in having a dedicated stream of TAC funding for safety improvements to state roads under the SRIP. The establishment of a federal funding program aimed at improving the safety of state roads, modelled on the successful elements of Victoria's SRIP, could enable the other states and territories to achieve similar levels of road trauma reduction as those achieved by Victoria in recent years. The Committee therefore considers that the Commonwealth Government should establish a proactive road infrastructure safety program to fund strategic safety improvements on state roads, modelled on the successful elements of Victoria's SRIP.

**Recommendation:**

**13. That the Minister for Roads and Ports, through the Council of Australian Governments, advocate the establishment of a federal program to fund safety improvements to state roads modelled on Victoria's Strategic Road Infrastructure Program (SRIP).**

## Road Safety Benefits of Increased Rail Freight

Heavy vehicles are over represented in fatal crashes. Heavy vehicles used in freight transport, both rigid and articulated trucks, account for approximately 15 per cent of road traffic fatalities nationally[105] but represent approximately only three per cent of all registered vehicles.[106]

Heavy vehicle truck crashes also have a disproportionate impact on other road users, particularly the drivers of light vehicles. In 2008, light vehicle occupants accounted for 146 of the 240 fatalities (61 per cent) involving heavy vehicle crashes.[107]

The Australian Transport Council's *National Heavy Vehicle Safety Strategy 2003 – 2010*, found that in 68 per cent fatal crashes involving a heavy vehicle, it is another party that is fully or partially at fault.[108] Nevertheless, the Strategy established eight strategic objectives aimed at improving the safety of both heavy vehicles and the other vehicles and road users with which they share the roads.[109] Some of the factors identified by the Strategy for improvement included:

- speeding by some heavy vehicle drivers;
- heavy vehicle driver impairment due to any combination of fatigue, drug taking and medical conditions; and
- heavy vehicle safety features, such as front, rear, and side underrun barriers.[110]

Heavy vehicle suspension has also been identified as an area in which safety improvements can be made. For example, Dr Arnold McLean in a paper entitled, *Highway and Urban Speed Air Suspended Heavy Vehicle Accident Signatures*, noted that heavy vehicles fitted with air suspension exhibit 'vastly different roll and handling characteristics' compared to heavy vehicles fitted with mechanical or metal spring suspension.[111] The paper also noted that newer heavy vehicles are more likely to be fitted with air suspensions and have a higher risk of loss of control on some types of curves.[112] Dr Lloyd Eric Davis, in a 2010 Doctor of Philosophy thesis submitted to the School of Built Environment and Engineering, Queensland University, stated that up to approximately 30 per cent of the maintenance portion of the Queensland Department of Transport and Main Roads' budget (approximately $75 million per year) could be saved by requiring road transport operators to regularly test their heavy vehicles, using a low cost suspension test, and replace worn suspension.[113] Further, he stated that suspension designs could be improved to reduce road infrastructure wear.[114]

Mr Byron Bloch, a vehicle safety expert in the United States, in a recent article published in *Vision Zero International*, states that the relatively low fuel efficiency of heavy freight hauling trucks means that their use in long distance travel is always less efficient than transporting the same load over the same distance by train.[115]

Mr Bloch also notes that the weight of heavy freight hauling trucks also has an adverse effect on the condition of the road surface and on road safety, since it increases the braking distance required to slow and stop and greatly increases the danger to other motorists in a collision.[116]

The safety and efficiency of heavy vehicle freight haulage is of particular concern given the significant increase in freight volumes

that is expected in coming years. Infrastructure Partnerships Australia (IPA), in its 2009 report, *Meeting the 2050 Freight Challenge*, cited research findings that the national land freight task is expected to triple by the year 2050.[117] IPA noted that the freight task is forecast to increase from 503 billion tonne kilometres per annum in 2008 to more than 1.5 trillion tonne kilometres per annum in 2050.[118] A tonne kilometre is a unit of measure which represents the transport of one tonne of goods by road over one kilometre.[119]

The IPA report also stated that under a 'business as usual scenario, where no major reforms are undertaken' rail freight will fail to make any affect into the dominance of road freight before 2030.[120]

Mr Mike Harris, Chief Executive, Australian Automobile Association, at a public hearing in Canberra on 17 March 2010, stated that increased investment in rail by federal and state governments to allow more of the freight task to be shifted from the roads to rail would improve the safety of the entire road network as measured by AusRAP star ratings. Mr Harris stated that:

> If you can take volume off the road, particularly heavy volume, by removing appropriate freight onto rail, that is a very smart and sensible thing to do and something we would strongly support and have strongly supported. … Certainly a serious investment in our rail infrastructure to improve its capacity to handle freight would be of enormous benefit to the country as a whole.[121]

Similarly, Mr Lauchlan McIntosh, Australasian College of Road Safety, at the public hearing in Canberra, noted the road safety advantage in shifting a greater proportion of freight travel from roads to rail. Mr McIntosh cited the east–west rail link across Australia as a particular example of an investment in rail infrastructure that has reduced the volume of trucks on, and likely to improve the safety of, a significant part of the road network.[122]

Rail freight accounts for the majority of land-based bulk freight (liquid or crushed solid material, transported en masse and without packaging, such as coal and iron ore) and for 40 per cent of the total land freight task (measured in billion tonne kilometres), compared to 35 per cent for roads and 25 per cent for coastal shipping. However, long-distance non-bulk freight (such as: pallets of goods, motor vehicles and trailers; and live animals) is predominately carried by road.[123]

Moreover, road is the chief non-bulk freight mode for most intercapital corridors. For example, rail's share of such freight is less than 20 per cent, and less than ten per cent on the Sydney–Melbourne and Sydney–Brisbane routes respectively, the two largest intercapital corridors.[124] There is therefore significant scope

to increase the share of this freight task that is accommodated by rail.

The Committee considers that from a road safety perspective, there is a pressing need to encourage a better balance between road and rail as modes of freight carriage. The Committee considers that there should be a proactive approach to increasing the proportion of freight that is carried on the nation's rail networks, particularly given the forecast trebling of the nation's freight task by 2050. Targeted investment in the rail freight network is justified, not only on road safety grounds, but also in view of the significantly greater wear and tear that road freight causes to the road network and the greater efficiencies that can be achieved for many long distance routes.

**Recommendation:**

**14. That the Minister for Transport advocate for increased federal-state funding for rail infrastructure at the Council of Australian Governments, with the aim of significantly boosting rail's share of the land freight task, particularly the non-bulk freight carriage task on inter-capital routes.**

## Road Safety Benefits of Increased Public Transport

The Committee also notes that increased use of public transport, particularly in metropolitan and provincial cities, has significant potential to lessen road trauma by reducing levels of vehicle use.

Mr Bryan Nye, Chief Executive Officer, Australasian Railway Association Inc, in a media release, August 2010, stated that:

> Any investment in rail that will see more people travelling by train will improve the safety of those travelling on Australian roads, reduce road accidents, and improve the Australian quality of life.[125]

The Committee notes that road safety benefits will also result from increased patronage on other forms of public transport, such as buses and trams since all forms of public transport provide a safer alternative to motor vehicle transport on our roads.

The Committee agrees that increased government investment in public transport, particularly on rail and bus networks, is a crucial part of the road safety equation. Indeed, the integrated approach to road and rail funding on the National Network, under the Nation Building Program, recognises this reality. The recent establishment of the Major Cities Unit within Infrastructure Australia provides a further example of an emerging shift in federal funding priorities towards increased public transport. However, the historical legacy of under-investment in public transport can only be addressed by

substantial increases in federal funding for public transport rail, tram and bus networks.

**Recommendation:**

**15. That the Minister for Transport, through the Council of Australian Governments, seek a significant increase in federal funding for new public transport infrastructure in Australia's metropolitan and provincial cities.**

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**Recommendations**

**8. That the Minister for Roads and Ports, through the Council of Australian Governments, advocate the allocation of state and federal funding for a series of public information campaigns on the star ratings and risk maps available from the AusRAP website.**

**9. That, in the event of a successful outcome of the trial of centre-line wire rope safety barriers on the South Gippsland Highway, the Minister for Roads and Ports ensures the installation of wire rope barriers as a low cost measure for improving the safety of Victoria's roads in the future.**

**10. That the Minister for Roads and Ports, through the Council of Australian Governments, advocate that funding for all new road construction under the federal-state road funding arrangements be made conditional on the integration of all speed limits and GPS settings into applicable electronic maps.**

**11. That the Minister for Roads and Ports, through the Council of Australian Governments, advocate the establishment of a federal-state road funding program dedicated to ensuring that digital maps are kept up to date.**

**12. That the Minister for Roads and Ports, through the Council of Australian Governments, advocate an increase in the annual level of Federal Black Spot funding to an amount representing ten per cent of the annual value of federal construction and maintenance expenditure on the National Network. The Federal Black Spot funding conditions should also require that states dedicate all such funding to local roads.**

**13. That the Minister for Roads and Ports, through the Council of Australian Governments, advocate the establishment of a federal program to fund safety**

**improvements to state roads modelled on Victoria's Strategic Road Infrastructure Program (SRIP).**

**14. That the Minister for Transport advocate for increased federal-state funding for rail infrastructure at the Council of Australian Governments, with the aim of significantly boosting rail's share of the land freight task, particularly the non-bulk freight carriage task on inter-capital routes.**

**15. That the Minister for Transport, through the Council of Australian Governments, seek a significant increase in federal funding for new public transport infrastructure in Australia's metropolitan and provincial cities.**

## Endnotes

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# Appendix A

## List of Submissions

### Government

ACT Department of Territory and Municipal Services
Department of Local Government, Western Australia
Office of Road Safety, Government of Western Australia
Queensland Local Government Grants Commission
Transport Accident Commission, Victoria
VicRoads/Department of Transport
Victoria Grants Commission

### Non Government

Australasian College of Road Safety
Australian Local Government Association
Municipal Association of Victoria
Roads Australia
Royal Automotive Club of Victoria (RACV) Limited

# Appendix B

## List of Witnesses

## Public Hearings

### Melbourne, 22 February 2010

| | |
|---|---|
| Mr Peter Daly | Chief Engineer, Traffic & Transport<br>**Royal Automobile Club of Victoria (RACV) Limited** |
| Mr Ian Webb | Chief Executive<br>**Roads Australia** |
| Mr John Thompson<br>Ms Samantha Cockfield | Senior Manager, Road Safety and Marketing<br>Manager, Road Safety<br>**Transport Accident Commission** |

### Melbourne, 1 March 2010

| | |
|---|---|
| Professor Harry Clarke | Professor of Economics<br>**La Trobe University School of Economics and Finance** |
| Mr Rob Spence<br>Ms Claire Dunn | Chief Executive Officer<br>Policy Officer<br>**Municipal Association of Victoria** |
| Mr Paul Slape<br>Mr Colin Morrison | Chair<br>Chief Executive Officer<br>**Victoria Grants Commission** |

### Sydney, 16 March 2010

| | |
|---|---|
| Mr Wal Setkiewicz | Senior Economic Adviser, Government Relations and Public Policy<br>**National Roads and Motorists' Association (NRMA) Motoring and Services** |
| Mr Grahame Gibbs<br>Mr Bruce Wright | Deputy Chair<br>Executive Officer<br>**New South Wales Local Government Grants Commission** |

| | |
|---|---|
| Mr Mark Fairweather | Chairman |
| Mr Paul Clauson | Executive Director<br>**Infrastructure Association Queensland** |
| Ms Lyn Sawtell | Executive Officer<br>**Queensland Local Government Grants Commission** |

### Canberra, 17 March 2010

| | |
|---|---|
| Mr Lauchlan McIntosh | President<br>**Australasian College of Road Safety** |
| Mr Mike Harris | Chief Executive<br>**Australian Automobile Association** |
| Mr Stuart St Clair | Chief Executive<br>**Australian Trucking Association** |
| Mr Chris Vardon | Chief Executive Officer<br>**South East Australian Transport Strategy Inc. (SEATS)** |

### Melbourne, 22 March 2010

| | |
|---|---|
| Professor John Stanley | Senior Fellow in Sustainable Land Transport<br>**Bus Industry Confederation** |

### Melbourne, 12 April 2010

| | |
|---|---|
| Mr Peter Ilee | Executive Officer<br>**South Australia Local Government Grants Commission** |
| Mr Brendan Lyon<br>Mr Larry McGrath | Executive Director<br>Manager, Transport Policy<br>**Infrastructure Partnerships Australia** |
| Mr Adrian Beresford-Wylie | Chief Executive<br>**Australia Local Government Association** |
| Mr Robert Freemantle<br>Ms Anita Curnow | Executive Director, Network and Asset Planning<br>Director, Network Improvements<br>**VicRoads** |

| | |
|---|---|
| Mr Dave Jones | Regional Manager for Victoria, Tasmania and New Zealand |
| Dr Dimitris Tsolakis | Chief Economist, Congestion, Freight and Productivity |
| | **ARRB Group** |

## Interstate Meeting

### Perth, 9 April 2010

| | |
|---|---|
| Mr Bob Peters | Manager Road Asset Planning |
| Mr Mike Cosson | Manager Project Programming |
| Mr Bob Phillips | Director Budget and Financial Planning |
| Mr Maurice Cammack | Acting Manager Road Safety |
| | **Main Roads, Western Australia** |
| Professor John Taplin | Professor of Information Management and Transport |
| | **The University of Western Australia Business School – School of Economics and Commerce** |
| Professor Greg Martin | Executive Director |
| | **Planning and Transport Research Centre** |
| Mr Jon Gibson | Director Policy and Strategy |
| | **Government of Western Australia, Office of Road Safety** |

# Appendix C

## List of Agreed Projects

### ACT

**ACT Projects being funded under the Nation Building Program 2008-09 to 2013-14**

| Project | Total Estimated Project Cost (outturn dollars) | Total Allocated Australian Government (AG) funding (outturn dollars) | AG Funding provided to 2007-08 inclusive (outturn dollars) | AG Base Funding Contribution 2008-09 to 2013-14 (outturn dollars) | Conditions |
|---|---|---|---|---|---|
| | $m | $m | $m | $m | |
| **NBP (NEW) PROJECTS** | | | | | |
| OFF-NETWORK | | | | | The total Australian Government contribution for the two projects below is capped at $37.5m. Within this amount funds can be reallocated between the projects to best meet project funding requirements. The ACT will meet remaining costs for the two projects. |
| Road upgrade in Canberra Airport precinct | 80.00 | 30.00 | | 30.00 | |
| Tharwa Road/Lanyon Drive upgrade | 7.50 | 7.50 | | 7.50 | |
| **Sum of NBP Project Funding** | | | | 37.50 | |
| | | | | | |
| **TOTAL PROJECT FUNDING TO ACT** | | | | **37.50** | |
| | | | | | |
| **ROAD MAINTENANCE FUNDING** | | | | | |
| Maintenance Contribution in 2008-09 | | 0.53 | | 0.53 | Formula allocation |
| Indicative Maintenance Formula Contribution 2009-10 to 2013-14 | | 2.35 | | 2.35 | Based on formula allocations in 2008-09, indicative funding for the ACT between 2009-10 to 2013-14 is $2.35m. This is subject to revisions in the light of revised data each year, including adjustments to the National Land Transport Network. |
| Nation Building additional maintenance in 2008-09 | | | | 0.10 | Maintenance funding only payable if MOU signed by 1 March 2009 |
| **Indicative Sum of Road Maintenance Funding** | | | | 2.98 | |
| | | | | | |
| **TOTAL INDICATIVE FUNDING TO ACT** | | | | **40.48** | |
| | | | | | |
| | | | | | |

Notes:

1. This schedule does not preclude the provision of additional funding to the ACT
2. This schedule is a baseline document which is not intended to reflect cost increases, reallocations between projects or project savings. Such variations will be separately accounted for on an ongoing basis. They will, among other things, be identified in program figures provided at the time of the Australian Government Budget.
3. Subject to agreement, additional funding may be provided by the Australian Government to other Continuing Projects not listed here that do not have capped funding, but this would need to be offset within the Australian Government's total funding to ACT.

## NSW Projects being funded under the Nation Building Program 2008-09 to 2013-14

| Project | Total Estimated Project Cost (outturn dollars) | Total Allocated Australian Government (AG) funding (outturn dollars) | AG Funding provided to 2007-08 inclusive (outturn dollars) | AG Base Funding Contribution 2008-09 to 2013-14 (outturn dollars) | Conditions |
|---|---|---|---|---|---|
| | $m | $m | $m | $m | |
| **CONTINUING PROJECTS** | | | | | |
| **INVESTMENT PROGRAM** | | | | | |
| **Sydney Urban/F3** | | | | | |
| Nth Sydney Study (F3 to Orbital) | 6.73 | 6.73 | 6.24 | 0.49 | Australian Government contribution is capped at $6.73m. |
| F3 to Branxton preconstruction | 52.00 | 52.00 | 47.22 | 4.78 | Australian Government contribution is capped at $52m. |
| Lower Hunter Transport Needs Study | 1.00 | 0.80 | 0.00 | 0.80 | Australian Government is providing 80% of funding capped at $0.8m. NSW will meet remaining costs. |
| F3 - widening (Stages 2 and 3) | 105.75 | 82.80 | 46.77 | 36.03 | Australian Government is providing 80% of funding, subject to NSW providing 20% of funding. Should project costs exceed $105m, the Australian Government will consider a proportionate increase in its funding, but any increase would need to be offset within the Australian Government's Total Project Funding to NSW. |
| Heavy Vehicle checking station south bound, Mt White | 8.10 | 4.05 | 4.06 | -0.01 | Australian Government is providing 50% of funding capped at $4.05m. NSW will meet remaining costs. |
| **Hume Highway** | | | | | |
| Albury upgrade | 330.36 | 330.36 | 331.91 | -1.55 | Australian Government is providing 100% of funding. Should project costs exceed $330.36m, the Australian Government will consider an increase in its funding, but any increase would need to be offset within the Australian Government's Total Project Funding to NSW. |
| F5 Ramps | 11.87 | 7.91 | 9.13 | -1.22 | Australian Government is providing 2/3 of funding, subject to Campbelltown Council (or NSW) contributing 1/3. Should project costs exceed $11.87m, the Australian Government will consider a proportionate increase in its funding, but any increase would need to be offset within the Australian Government's Total Project Funding to NSW. |
| Towrang Carrick Intersection Upgrade | 6.20 | 6.20 | 5.74 | 0.46 | Australian Government is providing 100% of funding. Should project costs exceed $6.2m, the Australian Government will consider an increase in its funding, but any increase would need to be offset within the Australian Government's Total Project Funding to NSW. |
| Coolac Bypass | 179.00 | 179.00 | 101.61 | 77.39 | Australian Government contribution is capped at $179m. |
| Safety Works | 3.25 | 3.25 | 2.98 | 0.27 | Australian Government contribution is capped at $3.25m. |
| Sheahan Bridge | 78.00 | 78.00 | 29.37 | 48.63 | Australian Government is providing 100% of funding. Should project costs exceed $78m, the Australian Government will consider an increase in its funding, but any increase would need to be offset within the Australian Government's Total Project Funding to NSW . |
| F5 Widening (northbound) Brooks Rd to Camden Valley Way | 26.21 | 20.97 | 20.42 | 0.56 | Australian Government is providing 80% of funding, subject to NSW providing 20% of funding. Should project costs exceed $26.21m, the Australian Government will consider a proportionate increase in its funding, but any increase would need to be offset within the Australian Government's Total Project Funding to NSW. |
| Planning works (Tarcutta, Woomargama and Holbrook bypasses) | 12.79 | 10.79 | 2.77 | 10.02 | Australian Government contribution is capped at $12.79m. |
| **New England Highway** | | | | | |
| Halcombe Hill realignment & safety works | 18.31 | 18.31 | 17.10 | 1.21 | Australian Government is providing 100% of funding. Should project costs exceed $18.31m, the Australian Government will consider an increase in its funding, but any increase would need to be offset within the Australian Government's Total Project Funding to NSW. |

| | | | | | |
|---|---|---|---|---|---|
| Sunnyside | 13.50 | 13.50 | 0.38 | 13.12 | Australian Government is providing 100% of funding. Should project costs exceed $13.5m, the Australian Government will consider an increase in its funding, but any increase would need to be offset within the Australian Government's Total Project Funding to NSW. |
| Weakleys Drive | 51.80 | 51.80 | 37.03 | 14.77 | Australian Government is providing 100% of funding. Should project costs exceed $51.8m, the Australian Government will consider an increase in its funding, but any increase would need to be offset within the Australian Government's Total Project Funding to NSW. |
| Muswellbrook Bypass - planning | 0.61 | 0.61 | 0.90 | -0.29 | Australian Government is providing 100% of funding. Should project costs exceed $0.61m, the Australian Government will consider an increase in its funding, but any increase would need to be offset within the Australian Government's Total Project Funding to NSW. |
| **Newell Highway** | | | | | |
| Moree Heavy Vehicle Bypass | 56.20 | 56.20 | 23.89 | 32.31 | Australian Government contribution is capped at $56.2m. |
| Bogan to Coobang | 17.48 | 17.48 | 17.00 | 0.48 | Australian Government is providing 100% of funding. Should project costs exceed $17.48m, the Australian Government will consider an increase in its funding, but any increase would need to be offset within the Australian Government's Total Project Funding to NSW. |
| Trewilga realignment - planning | 0.30 | 0.30 | 0.00 | 0.30 | Australian Government contribution is capped at $0.3m. |
| **Pacific Highway** | | | | | |
| AusLink 1 Funding Agreement, comprising indicative project funding as follows: | 1229.00 | 614.50 | 422.10 | 192.40 | Australian Government is providing 50% capped at $614.5m, subject to NSW also contributing 50%. In 2008 the two Governments agreed to commit an additional $15m each to the program in 2008-09 (see below). This counts as part of the New Projects funding. Additional funding for projects, such as Ballina Bypass, is also provided under New Projects. |
| Completed projects/funding | | 359.90 | 359.90 | 0.00 | |
| Tintenbar to Ewingsdale - planning | | 12.00 | 0.00 | 12.00 | |
| Kempsey to Eungai - planning | | 18.00 | 0.00 | 18.00 | |
| Warrell Creek to Urunga - planning | | 3.10 | 0.00 | 3.10 | |
| Coopernook to Moorland | | 92.50 | 33.20 | 59.30 | |
| Ballina Bypass | | 129.00 | 29.00 | 100.00 | |
| **Barton Highway** | | | | | |
| Planning and land acquisition for duplication and safety works | 20.00 | 20.00 | 0.07 | 19.93 | Australian Government contribution is capped at $20m. |
| **Network** | | | | | |
| Higher Mass Limits Bridges Package | 30.00 | 30.00 | 9.31 | 20.69 | Australian Government is providing 100% of funding. Should project costs exceed $30m, the Australian Government will consider an increase in its funding, but any increase would need to be offset within the Australian Government's Total Project Funding to NSW. |
| ITS - SCATS project | 1.50 | 1.50 | 0.00 | 1.50 | Australian Government contribution capped at $1.5m. |
| Package Works - Newell, Sturt and New England Highways | 167.50 | 167.50 | 161.25 | 6.25 | Australian Government contribution is capped at $167.5m. |
| **Port Links** | | | | | |
| Port Botany Links and Northern Rail Line | 42.50 | 42.50 | 0.34 | 42.16 | Australian Government contribution is capped at $42.5m. Funds for Port Botany Links will be provided to the Australian Rail Track Corporation. Remaining funds will be provided to the NSW Government. |
| | | | | | |
| **Sum of Continuing Project Funding** | | | | **521.48** | |
| | | | | | |
| **NBP (NEW) PROJECTS** | | | | | |

| INVESTMENT PROGRAM | | | | | |
|---|---|---|---|---|---|
| **Sydney Urban/F3** | | | | | |
| M4 East | TBD | 300.00 | | 300.00 | Australian Government contribution is 80% capped at $300m. The Australian Government contribution is subject to NSW contributing 20% of funds. Additional funding will be considered in future budgets. |
| F3 to Sydney Orbital | TBD | 150.00 | 0.00 | 150.00 | Australian Government contribution is 80% capped at $150m. The Australian Government contribution is subject to NSW contributing 20% of funds. Additional funding will be considered in future budgets. |
| Freight rail upgrades between Sydney and Newcastle | TBD | 840.00 | 0.00 | 840.00 | Australian Government contribution is capped at $840m. This funding will be provided to the Australian Rail Track Corporation. |
| Port Botany road and rail access and handling improvements package. | TBD | 150.00 | | 150.00 | Australian Government contribution is capped at $150m. This funding will be provided to the Australian Rail Track Corporation and/or the NSW Government subject to consultation. |
| Moorebank intermodal freight terminal | TBD | 300.00 | | 300.00 | Australian Government contribution is capped at $300m. Some of these funds will be used by the Australian Government for feasibility and scoping studies in consultation with NSW. The remainder of the funds will be provided to the Australian Rail Track Corporation and/or the NSW Government subject to consultation. |
| **Hume Highway** | | | | | |
| F5 widening | 140.00 | 112.00 | 0.00 | 112.00 | Australian Government contribution is 80% capped at $112m. NSW will meet remaining costs. |
| Hume Highway | | | | | |
| - Tarcutta bypass (see Note 4) | 255.00 | 225.00 | | 225.00 | Australian Government will make advance payment of $225m to NSW in 2008-09. Australian Government funding is capped at this amount, but NSW may apply interest on the $225m to the project. Any funds remaining from the $225m and interest will be applied to other projects in this Schedule as agreed between the Parties. Also see Note 4. |
| - Woomargama bypass (see Note 4) | 310.00 | 265.00 | | 265.00 | Australian Government will make advance payments to NSW of $9m in 2008-09 and $256m. Australian Government funding is capped at $265m, but NSW may apply interest on the $265m to the project. Any funds remaining from the $265m and interest will be applied to other projects in this Schedule as agreed between the Parties. Also see Note 4. |
| - Holbrook bypass | 308.00 | 210.00 | | 210.00 | Australian Government will provide 100% of funding up to $210m. Subject to consideration by the Australian Government, it will provide 50% of any difference between its Base Funding Contribution ($210m) and the pre-tender cost estimate, with NSW to provide the remainder of the cost. Any increase in Australian Government funding above $210m would need to be offset within the Australian Government's Total Project Funding to NSW. |
| **Pacific Highway** | TBD | 2451.00 | 0.00 | 2451.00 | Australian Government contribution is capped at $2451m. Australian Government funding is provided on the basis that NSW will commit $800m. A package of works will be developed for funding. As the highest priorities this will include completion of construction of the Ballina Bypass, duplication from Tintenbar to Ewingsdale, upgrade of Sextons Hill (Banora Point), duplication from Sapphire to Woolgoolga and the provision of $1 billion of the Australian Government's funding to works between Coffs Harbour and Bulahdelah. |
| Glenugie Upgrade | 60.00 | 48.00 | | 48.00 | Australian Government contribution is $48 million, with any costs above that to be shared 50/50 with NSW |
| **Great Western Highway** | | | | | |
| Duplication of Great Western Highway (sections between Penrith and Katoomba) | TBD | 100.00 | | 100.00 | Australian Government contribution is capped at $100m with funds anticipated to be primarily allocated to Woodford to Hazelwood Stage 2 upgrade. |
| Great Western Highway upgrade (sections between Katoomba and Lithgow) | TBD | 200.00 | | 200.00 | Australian Government funding is capped at $200m within the five year period and is provided on the basis that the Australian Government will provide 80% of project costs subject to NSW providing 20% of costs within this period. Additional funding will be considered in future budgets. |
| Safety improvements to the **Barton Highway** | 20.00 | 20.00 | | 20.00 | Australian Government contribution is capped at $20m. |
| Transport Needs of the **Central West** Study | TBD | 5.00 | | 5.00 | Australian Government contribution is capped at $5m. |
| **OFF-NETWORK** | | | | | |
| Alstonville Bypass | 90.00 | 90.00 | | 90.00 | Australian Government contribution is capped at $90m. |
| Werrington Arterial | 15.00 | 7.00 | | 7.00 | Australian Government contribution is capped at $7m. NSW and or Penrith Council will meet remaining costs. |
| Bega Bypass | TBD | 30.00 | | 30.00 | Australian Government contribution is capped at $30m. |
| | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| **Sum of NBP Project Funding** | | | | **5503.00** | |
| | | | | | |
| **TOTAL PROJECT FUNDING TO NSW** | | | | **6024.48** | |
| | | | | | |
| **ROAD MAINTENANCE FUNDING** | | | | | |
| Maintenance Contribution in 2008-09 | | 98.23 | | 98.23 | Formula allocation. |
| Indicative Maintenance Formula Contribution 2009-10 to 2013-14 | | 491.15 | | 491.15 | Based on formula allocations in 2008-09, indicative funding for NSW between 2009-10 to 2013-14 is $491.2m. This is subject to revision in the light of revised data each year, including adjustments to the National Land Transport Network. |
| Additional Maintenance Funding 2009-10 to 2013-14 | | 108.85 | | 108.85 | |
| **Indicative Sum of Road Maintenance Funding** | | **698.23** | | **698.23** | |
| | | | | | |
| **Major infrastructure projects funded in the 2009-10 Budget** | | | | | |
| Hunter Expressway | 1,651 | 1,451 | | 1,451 | Australian Government contribution is capped at $1450m. The NSW government is contributing $200m. |
| Pacific Highway - Kempsey Bypass | 618 | 618 | | 618 | Australian Government contribution is capped at $618m. |
| West Metro | 91 | | | 91 | Australian Government contribution is capped at $91 million for the preconstruction phase. |
| | | | | | |
| **TOTAL INDICATIVE FUNDING TO NSW** | | | | **8882.71** | |
| | | | | | |
| **Notes**: | | | | | |
| 1. This schedule does not preclude the provision of additional funding to NSW. | | | | | |
| 2. This schedule is a baseline document which is not intended to reflect cost increases, reallocations between projects or project savings. Such variations will be separately accounted for on an ongoing basis. They will, among other things, be identified in program figures provided at the time of the Australian Government Budget. | | | | | |
| 3. Subject to agreement, additional funding may be provided by the Australian Government to other Continuing Projects not listed here that do not have capped funding, but this would need to be offset within the Australian Government's Total Project Funding to NSW. | | | | | |
| 4. These projects are generally to subject to the same requirements as other projects in this Schedule except as noted above. In addition, advance payments and interest for Tarcutta Bypass must be held in such a way that they are separately identifiable. | | | | | |

## Northern Territory Projects being funded under the Nation Building Program 2008-09 to 2013-14

| Project | Total Estimated Project Cost (outturn dollars) | Total Allocated Australian Government (AG) funding (outturn dollars) | AG Funding provided to 2007-08 inclusive (outturn dollars) | AG Base Funding Contribution 2008-09 to 2013-14 (outturn dollars) | Conditions |
|---|---|---|---|---|---|
| | $m | $m | $m | $m | |
| **CONTINUING PROJECTS** | | | | | |
| **INVESTMENT PROGRAM** | | | | | |
| **Victoria Highway** | | | | | |
| Victoria Highway - Victoria River and Lost Creek bridge replacement and road upgrade for improved flood immunity | 20.00 | 20.00 | 15.51 | 4.49 | Australian Government contribution is capped at $20m. |
| **Network** | | | | | |
| AusLink network - widening and rehabilitation program | 18.50 | 18.50 | 13.54 | 4.96 | Australian Government contribution is capped at $18.5m. |
| **Port Links** | | | | | |
| Tiger Brennan Drive - East Arm Port access | 72.00 | 13.70 | 1.88 | 11.82 | Together with additional funding ($22.3m) provided under New Projects, Australian Government contribution is 50%, capped at $36m. The NT will meet remaining costs. |
| | | | | | |
| **Sum of Continuing Project Funding** | | | | **21.27** | |
| | | | | | |
| **NBP (NEW) PROJECTS** | | | | | |
| **INVESTMENT PROGRAM** | | | | | |
| Tiger Brennan Drive - East Arm Port access | 72.00 | 22.30 | | 22.30 | Together with funding ($13.7m) provided under Continuing Projects, Australian Government contribution is 50%, capped at $36m. The NT will meet remaining costs. |
| Tiger Brennan Drive - Stuart Highway intersection | TBD | 38.00 | | 38.00 | Australian Government contribution is capped at $38m. |
| Improve flood immunity, road safety and productivity on NT highways | 160.00 | 160.00 | | 160.00 | Australian Government contribution is capped at $160m. |
| Darwin Port studies | 3.20 | 3.20 | | 3.20 | Australian Government contribution is capped at $3.2m. |
| **OFF-NETWORK** | | | | | |
| NT Community, Beef and Mining roads package: | | | | | |
| Improving flood immunity on Port Keats Road | 20.50 | 11.00 | | 11.00 | Australian Government contribution is capped at $11m. |
| Upgrade of the Plenty Highway | 8.00 | 8.00 | | 8.00 | Australian Government contribution is capped at $8m. |

| | | | | | |
|---|---|---|---|---|---|
| Sealing of the Buntine Highway | 8.00 | 7.00 | | 7.00 | Australian Government contribution is capped at $7m. |
| Upgrade of the Central Arnhem Road | 15.00 | 15.00 | | 15.00 | Australian Government contribution is capped at $15m. |
| Upgrade of the Tanami Road | 18.00 | 6.00 | | 6.00 | Australian Government contribution is capped at $6m. |
| High level bridge over the Macarthur River at Borroloola | 6.00 | 3.00 | | 3.00 | Australian Government contribution is capped at $3m. |
| Upgrade of the Maryvale Road and Hughes Stock Route | 5.50 | 2.00 | | 2.00 | Australian Government contribution is capped at $2m. |
| **Sum of NBP Project Funding** | | | | **275.50** | |
| | | | | | |
| **TOTAL PROJECT FUNDING TO NT** | | | | **296.77** | |
| | | | | | |
| **ROAD MAINTENANCE FUNDING** | | | | | |
| Maintenance Contribution in 2008-09 | | 15.90 | | 15.90 | Formula allocation. |
| Indicative Maintenance Formula Contribution 2009-10 to 2013-14 | | 77.25 | | 77.25 | Based on formula allocations in 2008-09, indicative funding for NT between 2009-10 to 2013-14 is $77.25m. This is subject to revision in the light of revised data each year, including adjustments to the National Land Transport Network. |
| Additional Maintenance Funding 2009-10 to 2013-14 | | 22.75 | | 22.75 | |
| Nation Building additional maintenance in 2008-09 | | | | 12.00 | Maintenance funding only payable if MOU signed by 1 March 2009. |
| **Indicative Sum of Road Maintenance Funding** | | | | **127.90** | |
| | | | | | |
| **Major infrastructure projects funded in the 2009-10 Budget** | | | | | |
| Port of Darwin Expansion | 325.00 | 50.00 | | 50.00 | Australin Government contribution is capped at $50m. NT Government is committing $10m. |
| | | | | | |
| **TOTAL INDICATIVE FUNDING TO NT** | | | | **474.67** | |
| | | | | | |
| **Notes:** | | | | | |
| 1. This schedule does not preclude the provision of additional funding to NT | | | | | |
| 2. This schedule is a baseline document which is not intended to reflect cost increases, reallocations between projects or project savings. Such variations will be separately accounted for on an ongoing basis. They will, among other things, be identified in program figures provided at the time of the Australian Government Budget. | | | | | |
| 3. Subject to agreement, additional funding may be provided by the Australian Government to other Continuing Projects not listed here that do not have capped funding, but this would need to be offset within the Australian Government's total funding to NT. | | | | | |

# Queensland

**Queensland Projects being funded under the Nation Building Program 2008-09 to 2013-14**

| Project | Total Estimated Project Cost (outturn dollars) | Total Allocated Australian Government (AG) funding (outturn dollars) | AG Funding provided to 2007-08 inclusive (outturn dollars) | AG Base Funding Contribution 2008-09 to 2013-14 (outturn dollars) | Conditions |
|---|---|---|---|---|---|
| | $m | $m | $m | $m | |
| CONTINUING PROJECTS | | | | | |
| INVESTMENT PROGRAM | | | | | |
| Bruce Highway | | | | | |
| Burdekin Safety Works | 7.61 | 7.61 | 7.62 | -0.01 | Australian Government contribution is capped at $7.61m. |
| Glenorchy Straight | 12.26 | 12.26 | 12.31 | -0.05 | Australian Government contribution is capped at $12.26m. |
| Black Mountain safety works | 4.20 | 4.20 | 4.12 | 0.08 | Australian Government contribution is capped at $4.2m. |
| Gympie four laning & upgrading | 70.80 | 70.80 | 33.32 | 37.48 | Australian Government is providing 100% of funding. Should project costs exceed $70.8m, the Australian Government will consider an increase in its funding, but any increase would need to be offset within the Australian Government's Total Project Funding to Queensland. |
| Overtaking lanes Gympie-Maryborough | 4.80 | 4.80 | 4.78 | 0.02 | Australian Government contribution is capped at $4.8m. |
| Realignment rail crossing Plain to Saltwater | 19.80 | 19.80 | 19.90 | -0.10 | Australian Government contribution is capped at $19.8m. |
| Rockhampton-St Lawrence safety improvements [Tooloombah Ck - Granite Ck] | 4.06 | 4.06 | 4.06 | 0.01 | Australian Government contribution is capped at $4.06m. |
| Townsville ring road [Shaw Road] | 119.00 | 79.50 | 77.02 | 2.48 | Australian Government providing 100% of funding up to $40m. The Australian Government will contribute 50% of any further cost capped at $39.5m (ie a total coumbution cap of $79.5m), subject to Queensland meeting the remainder of the cost. |
| Caboolture Motorway | 299.08 | 299.08 | 198.12 | 100.96 | Australian Government contribution is capped at $299.08m. |
| Barkly Highway | | | | | |
| Waroona Creek | 16.86 | 16.86 | 15.54 | 1.32 | Australian Government contribution is capped at $16.86m. |
| Cunningham Highway | | | | | |
| Eight Mile intersection | 4.25 | 4.25 | 2.88 | 1.37 | Australian Government contribution is capped at $4.25m. |
| Network | | | | | |
| Strategic Corridor Programme | 88.65 | 88.65 | 82.24 | 6.41 | Australian Government contribution is capped at $88.65m. |
| Higher Mass Limits | 10.00 | 10.00 | 0.00 | 10.00 | Australian Government contribution is capped at $10m. |
| ITS - Variable message signs, Cooroy-Gympie | 2.80 | 1.50 | 0.10 | 1.40 | Australian Government contribution is capped at $1.5m. |
| ITS - Heavy vehicle initiatives | 3.01 | 1.50 | 0.20 | 1.30 | Australian Government contribution is capped at $1.5m. |
| Brisbane Urban / Ipswich Motorway | | | | | |
| Ipswich Motorway Safety Works | 30.90 | 30.90 | 28.50 | 2.40 | Australian Government contribution is capped at $30.9m. |
| Ipswich Motorway - Wacol to Darra | 700.00 | 700.00 | 198.83 | 501.17 | Australian Government contribution is capped at $700m. |
| Beatty/Balham intersections | TBD | 10.00 | 0.00 | 10.00 | Australian Government contribution is capped at $10m. |

| | | | | | |
|---|---|---|---|---|---|
| Ipswich Motorway - Logan Motorway interchange | 255.00 | 255.00 | 155.78 | 99.22 | Australian Government contribution is capped at $255m. |
| Truck Night Toll Waiver Trial | 3.50 | 3.50 | 2.47 | 1.03 | Australian Government is providing 100% of funding. Should project costs exceed $3.5m, the Australian Government will consider an increase in its funding, but any increase would need to be offset within the Australian Government's Total Project Funding to Queensland. |
| Number Plate Recognition Trial | 5.00 | 5.00 | 1.50 | 3.50 | Australian Government is providing 100% of funding. Should project costs exceed $5m, the Australian Government will consider an increase in its funding, but any increase would need to be offset within the Australian Government's Total Project Funding to Queensland. |
| Port of Brisbane Study | 1.20 | 1.20 | 0.00 | 1.20 | Australian Government contribution is capped at $1.2m. |
| Goodna Bypass - land acquisition/compensation | 130.00 | 70.00 | 63.99 | 6.01 | Australian Government contribution is capped at $70m. |
| **Non-Network** | | | | | |
| Bundaberg Port Road | 1.00 | 1.00 | 0.10 | 0.90 | Australian Government contribution is capped at $1m. |
| | | | | | |
| **Sum of Continuing Project Funding** | | | | **788.10** | |
| | | | | | |
| **NBP (NEW) PROJECTS** | | | | | |
| **INVESTMENT PROGRAM** | | | | | |
| **Brisbane Urban/Ipswich Motorway** | | | | | |
| Pacific Motorway upgrade | | | | | |
| Nerang to Tugun | 420.00 | 210.00 | | 210.00 | Australian Government contribution is 50% capped at $210m. Queensland will meet remaining costs. |
| Gateway to Logan | 490.00 | 245.00 | | 245.00 | Australian Government contribution is 50% capped at $245m. Queensland will meet remaining costs. |
| Ipswich Motorway - Dinmore to Goodna | TBD | 1200.00 | | 1200.00 | Australian Government contribution is capped at $1200m. Of the $1200m, $60m has been directed to the project which was previously allocated to the Goodna Bypass corridor. |
| Interchange at Mains and Kessels Road | TBD | 300.00 | | 300.00 | Australian Government contribution is capped at $300m. |
| Gateway Motorway South ( Mt. Gravatt-Capalaba Road to the Pacific Motorway) | TBD | 70.00 | | 70.00 | Australian Government contribution is capped at $70m. |
| Gateway Motorway North (Nudgee Road to the Bruce Highway) | TBD | 125.00 | | 125.00 | Australian Government contribution is capped at $125m. |
| Northern Link tunnel | TBD | 500.00 | | 100.00 | This funding will be provided to Brisbane City Council. The Australian Government contribution is capped at $100m in the period 2009-10 to 2013-14. The Australian Government will make a further $400m (capped) available in 2014-15. |
| **Bruce Highway** | | | | | |
| Sarina to Cairns Section: | | | | | |
| Black Spots | 105.00 | 105.00 | | 105.00 | Australian Government contribution capped at $105m. |
| Rest areas | 5.00 | 5.00 | | 5.00 | Australian Government contribution capped at $5m. |
| Overtaking lanes | 60.00 | 60.00 | | 60.00 | Australian Government contribution capped at $60m. |
| Upgrade southern approach to Cairns | 150.00 | 150.00 | | 150.00 | Australian Government contribution capped at $150m. |
| Raise southern approach to the Mulgrave River Bridge | TBD | 40.00 | | 40.00 | Australian Government will provide 80% of project costs up to a contribution level of $40m, subject to Queensland providing 20% of project costs up to a contribution level of $10m. Subject to Australian Government consideration, it will provide 50% of any difference in project cost between the combined contribution level of $50m and the pre-tender cost estimate, with Queensland to provide the remainder of the cost. Any increase in Australian Government funding above $40m would need to be offset within the Australian Government's Total Project Funding to Queensland. |

| | | | | | |
|---|---|---|---|---|---|
| Duplication from Vantassel Street to Flinders Highway | TBD | 110.00 | | 110.00 | Australian Government will provide 80% of project costs up to a contribution level of $110m, subject to Queensland providing 20% of project costs up to a contribution level of $27.5m. Subject to Australian Government consideration, it will provide 50% of any difference in project cost between the combined contribution level of $137.5m and the pre-tender cost estimate, with Queensland to provide the remainder of the cost. Any increase in Australian Government funding above $110m would need to be offset within the Australian Government's Total Project Funding to Queensland. |
| Douglas Arterial duplication | TBD | 55.00 | | 55.00 | Australian Government will provide 50% of project costs up to a contribution level of $55m, subject to Queensland providing 50% of project costs up to a contribution level of $55m. Subject to Australian Government consideration, it will provide 50% of any difference in project cost between the combined contribution level of $110m and the pre-tender cost estimate, with Queensland to provide the remainder of the cost. Any increase in Australian Government funding above $55m would need to be offset within the Australian Government's Total Project Funding to Queensland. |
| Cardwell Range realignment | TBD | 90.00 | | 90.00 | Australian Government contribution is capped at $90m. |
| Townsville Port Access Road | 190.00 | 95.00 | | 95.00 | Australian Government contribution is 50% capped at $95m. Queensland will meet remaining costs. |
| Improved flood immunity at Gairloch Floodway | 40.00 | 40.00 | | 40.00 | Australian Government contribution capped at $40m. |
| Upgrade the southern approach to Mackay | 50.00 | 50.00 | | 50.00 | Australian Government contribution capped at $50m. |
| Realign and raise Highway from Sandy Corner to Collinsons Lagoon | TBD | 50.00 | | 50.00 | Australian Government will provide 80% of project costs up to a contribution level of $50m, subject to Queensland providing 20% of project costs up to a contribution level of $12.5m. Subject to Australian Government consideration, it will provide 50% of any difference in project cost between the combined contribution level of $62.5m and the pre-tender cost estimate, with Queensland to provide the remainder of the cost. Any increase in Australian Government funding above $50m would need to be offset within the Australian Government's Total Project Funding to Queensland. |
| Upgrade Burdekin River Bridge | 25.00 | 25.00 | | 25.00 | Australian Government contribution capped at $25m. |
| Burdekin Road Safety Audit projects | 25.00 | 25.00 | | 25.00 | Australian Government contribution capped at $25m. |
| Southern approaches to Sarina | 10.00 | 10.00 | | 10.00 | Australian Government contribution capped at $10m. |
| Curra to Sarina Section: | | | | | |
| Black Spots | 115.00 | 115.00 | | 115.00 | Australian Government contribution capped at $115m. |
| Rest areas | 20.00 | 20.00 | | 20.00 | Australian Government contribution capped at $20m. |
| Overtaking Lanes | 105.00 | 105.00 | | 105.00 | Australian Government contribution capped at $105m. |
| Yeppen flood plain study | 5.00 | 5.00 | | 5.00 | Australian Government contribution capped at $5m. |
| Calliope Crossroads | 55.00 | 55.00 | | 55.00 | Australian Government contribution capped at $55m. |
| Cabbage Tree Creek to Carman Road and Back Creek Range section upgrade | TBD | 100.00 | | 100.00 | Australian Government will provide 80% of project costs up to a contribution level of $100m, subject to Queensland providing 20% of project costs up to a contribution level of $25m. Subject to Australian Government consideration, it will provide 50% of any difference in project cost between the combined contribution level of $125m and the pre-tender cost estimate, with Queensland to provide the remainder of the cost. Any increase in Australian Government funding above $100m would need to be offset within the Australian Government's Total Project Funding to Queensland. |
| Upgrading of southern approaches to Gin Gin | 20.00 | 20.00 | | 20.00 | Australian Government contribution capped at $20m. |
| New Isis River bridge | TBD | 25.00 | | 25.00 | Australian Government will provide 80% of project costs up to a contribution level of $25m, subject to Queensland providing 20% of project costs up to a contribution level of $6.25m. Subject to Australian Government consideration, it will provide 50% of any difference in project cost between the combined contribution level of $31.25m and the pre-tender cost estimate, with Queensland to provide the remainder of the cost. Any increase in Australian Government funding above $25m would need to be offset within the Australian Government's Total Project Funding to Queensland. |
| Caboolture to Curra: | | | | | |
| Cooroy to Curra project | TBD | 200.00 | | 200.00 | Initial Australian Government contribution is capped at $200m. Additional funding will be considered in future budgets. |

| | | | | | |
|---|---|---|---|---|---|
| Cooroy to Curra project (Section B) | 613.00 | 488.00 | | 488.00 | Australian Government contribution capped at $488m. Funding is to be used for the duplication of a 12-kilometre section of the Bruce Highway between Cooroy and Curra (section B) to provide a four-lane divided highway. |
| Upgrade of Caboolture to Caloundra | 195.00 | 195.00 | | 195.00 | Australian Government contribution capped at $195m. |
| Black Spots | 30.00 | 30.00 | | 30.00 | Australian Government contribution capped at $30m. |
| **Warrrego Highway** | | | | | |
| Upgrade from Roma to Mitchell | TBD | 40.00 | | 40.00 | Australian Government will provide 80% of project costs up to a contribution level of $40m, subject to Queensland providing 20% of project costs up to a contribution level of $10m. Subject to Australian Government consideration, it will provide 50% of any difference in project cost between the combined contribution level of $50m and the pre-tender cost estimate, with Queensland to provide the remainder of the cost. Any increase in Australian Government funding above $40m would need to be offset within the Australian Government's Total Project Funding to Queensland. |
| Overtaking lanes | 10.00 | 10.00 | | 10.00 | Australian Government contribution capped at $10m. |
| Rest areas | 5.00 | 5.00 | | 5.00 | Australian Government contribution capped at $5m. |
| | | | | | |
| **OFF-NETWORK** | | | | | |
| **Road Upgrades in Cape York and the North West** | | | | | |
| Sealing of Peninsula Development Road | 30.00 | 15.00 | | 15.00 | Australian Government contribution is 50% capped at $15m. Queensland will meet remaining costs. |
| Sealing of Wills Development Road | 9.00 | 4.50 | | 4.50 | Australian Government contribution is 50% capped at $4.5m. Queensland will meet remaining costs. |
| Remote community road upgrades in Cape York | 21.00 | 10.50 | | 10.50 | Australian Government contribution is 50% capped at $10.5m. Queensland will meet remaining costs. |
| Peak Downs Highway study | 2.00 | 1.00 | | 1.00 | Australian Government contribution is 50% capped at $1m. Queensland will meet remaining costs. |
| **Sum of NBP Project Funding** | | | | **4604.00** | |
| | | | | | |
| **TOTAL PROJECT FUNDING TO QUEENSLAND** | | | | **5392.10** | |
| | | | | | |
| **ROAD MAINTENANCE FUNDING** | | | | | |
| Maintenance Contribution in 2008-09 | | 67.76 | | 67.76 | |
| Indicative Maintenance Formula Contribution 2009-10 to 2013-14 | | 338.8 | | 338.80 | Based on formula allocations in 2008-09, indicative funding for Queensland between 2009-10 to 2013-14 is $338.8m. This is subject to revision in the light of revised data each year, including adjustments to the National Land Transport Network. |
| Additional Maintenance Funding 2009-10 to 2013-14 | | 87.55 | | 87.55 | |
| Nation Building additional maintenance in 2008-09 | | | | 52.90 | Maintenance funding only payable if MOU signed by 1 March 2009. |

| | | | | | |
|---|---|---|---|---|---|
| **Indicative Sum of Road Maintenance Funding** | | **494.11** | | **547.01** | Queensland's maintenance funding for 2009-10 to 2013-14 includes the following maintenance upgrades on the Bruce Highway: $150m for maintenance of the Sarina to Cairns section; $70m for strengthening and widening of the Childers to Sarina section; $25m for strengthening and widening of the Curra to Childers section; $75m for maintenance of the Curra to Sarina section; $35m for the Nambour Bypass pavement upgrade; and $20m for Maintenance on the Caboolture/Sunshine Coast section. |
| | | | | | |
| **Major infrastructure projects funded in the 2009-10 Budget** | | | | | |
| Ipswich Motorway | | 884.00 | | 884.00 | Provide for additional works on the Ipswich Motorway between Dinmore and Goodna, Wacol to Darra Stage 2 and initial planning for an upgrade from Darra to Rocklea. |
| Gold Coast Light Rail | 1068.00 | 365.00 | | 365.00 | Funding to be used for Stages 2 and 3 of the Light Rail project to provide a light rail public transport link between Griffith University (Gold Coast Campus) and Broadbeach via Southport. |
| Brisbane Inner City Rail Feasibility Study | 25.00 | 20.00 | | 20.00 | Australian Government contribution is capped at $20m. |
| | | | | | |
| **Total Indicative Funding to Queensland (2008-09 to 2013-14)** | | | | **7208.10** | |
| | | | | | |
| **Notes:** | | | | | |
| 1. This schedule does not preclude the provision of additional funding to Queensland | | | | | |
| 2. This schedule is a baseline document which is not intended to reflect cost increases, reallocations between projects or project savings. Such variations will be separately accounted for on an ongoing basis. They will, among other things, be identified in program figures provided at the time of the Australian Government Budget. | | | | | |
| 3. Subject to agreement, additional funding may be provided by the Australian Government to other Continuing Projects not listed here that do not have capped funding, but this would need to be offset within the Australian Government's total funding to Queensland. | | | | | |
| 4. The Bundaberg Port Road is being administered under the *Australian Land Transport Development Act 1988* | | | | | |

## South Australian Projects being funded under the Nation Building Program 2008-09 to 2013-14

| Project | Total Estimated Project Cost | Total Allocated Australian Government (AG) funding (outturn dollars) | AG funding provided to 2007-08 inclusive | AG Base Funding Contribution 2008-09 to 2013-14 (outturn dollars) | Conditions |
|---|---|---|---|---|---|
| | $m | $m | $m | $m | |
| **CONTINUING PROJECTS** | | | | | |
| **INVESTMENT PROGRAM** | | | | | |
| **Adelaide Urban** | | | | | |
| Hampstead Rd - intersection with Mullers and Regency Roads | 4.20 | 4.20 | 4.19 | 0.01 | Australian Government contribution is capped at $4.2m. |
| Northern Expressway & Port Wakefield Road upgrade | 564.00 | 146.00 | 86.42 | 59.58 | See entry under New Projects |
| **Sturt Highway** | | | | | |
| Riverland Passing Lanes | 18.29 | 18.29 | 18.36 | -0.07 | Australian Government contribution is capped at $18.29m. |
| Sturt Highway - 5 year upgrading programme | 55.11 | 55.11 | 34.45 | 20.66 | Australian Government contribution is capped at $55.11m. |
| Other projects | 33.41 | 33.41 | 24.08 | 9.33 | |
| Duplication between Gawler and Argent Road | 21.70 | 21.70 | 10.37 | 11.33 | |
| **Network** | | | | | |
| ITS - Advance traffic management system, Adelaide-Crafters-Bridgwater | 3.00 | 3.00 | 0.75 | 2.25 | Australian Government contribution is capped at $3m. |
| | | | | | |
| **Sum of Continuing Project Funding** | | | | **82.43** | |
| | | | | | |
| **NBP (NEW) PROJECTS** | | | | | |
| **INVESTMENT PROGRAM** | | | | | |
| Northern Expressway & Port Wakefield Road upgrade | 564.00 | 305.20 | | 305.20 | Taken together with the $146m being provided under Continuing Projects, the Australian Government contribution is 80% capped at $451.2m. SA will meet remaining costs. |
| South Road: | | | | | |
| Planning | 70.00 | 70.00 | | 70.00 | Australian Government contribution is capped at $70m. |
| South Road package works | TBD | 430.00 | | 430.00 | Australian Government contribution is 50% capped at $430m. SA will meet remaining costs. The package of works is to include works at Grand Junction, Cormack Road and Wingfield Rail Line and Sturt Road. Additional funding will be considered in future budgets. |
| Dukes Highway Upgrade | 100.00 | 80.00 | | 80.00 | Australian Government contribution is 80% capped at $80m. SA will meet remaining costs. SA's contribution may be directed to the Princes Highway and the South East Freeway. |

| | | | | | |
|---|---|---|---|---|---|
| Sturt Highway - Renmark Intersection Upgrades | 3.60 | 0.40 | 0.40 | 0.00 | The Australian Government has agreed to apply interest of $3.2m (capped) and savings of $0.4m (capped) from roads projects recently completed in South Australia. South Australia will meet any additional costs |
| **OFF-NETWORK** | | | | | |
| Victor Harbour, Main South Road, Seaford Road junction | 12.00 | 3.50 | | 3.50 | Australian Government contribution is capped at $3.50m. |
| Victor Harbor Road/Main Road - McLaren Vale Intersection Upgrade | 18.00 | 0.00 | 0.00 | 0.00 | The Australian Government has agreed to apply interest of $14.4m (capped) from roads projects recently completed in South Australia. South Australia will meet any additional costs. |
| | | | | | |
| **Sum of NBP Project Funding** | | | | **888.70** | |
| | | | | | |
| **TOTAL PROJECT FUNDING TO SA** | | | | **971.13** | |
| | | | | | |
| **ROAD MAINTENANCE FUNDING** | | | | | |
| Maintenance Contribution in 2008-09 | | | | 28.26 | Formula allocation. |
| Indicative Maintenance Formula Contribution 2009-10 to 2013-14 | | 141.3 | | 141.3 | Based on formula allocations in 2008-09, indicative funding for SA between 2009-10 to 2013-14 is $141.3m. This is subject to revision in the light of revised data each year, including adjustments to the National Land Transport Network. |
| Additional Maintenance Funding 2009-10 to 2013-14 | | 58.7 | | 58.7 | |
| Nation Building additional maintenance in 2008-09 | | | | 15.00 | Maintenance funding only payable if MOU signed by 1 March 2009. |
| **Indicative Sum of Road Maintenance Funding** | | | | **243.26** | |
| | | | | | |
| **Major infrastructure projects funded in the 2009-10 Budget** | | | | | |
| Gawler Rail Line Modernisation | 293.50 | 293.50 | | 293.50 | Australian Government contribution is capped at $293.5m. |
| Noarlunga to Seaford Rail Extension | 291.20 | 291.20 | | 291.20 | Australian Government contribution is capped at $291.2m. |
| O'Bahn Track Extension | 61.00 | 61.00 | | 61.00 | Australian Government contribution is capped at $61m. |
| | | | | | |
| **TOTAL INDICATIVE FUNDING TO SA** | | | | **1860.09** | |
| | | | | | |
| **Notes:** | | | | | |
| 1. This schedule does not preclude the provision of additional funding to SA | | | | | |
| 2. This schedule is a baseline document which is not intended to reflect cost increases, reallocations between projects or project savings. Such variations will be separately accounted for on an ongoing basis. They will, among other things, be identified in program figures provided at the time of the Australian Government Budget. | | | | | |
| 3. Subject to agreement, additional funding may be provided by the Australian Government to other Continuing Projects not listed here that do not have capped funding, but this would need to be offset within the Australian Government's total funding to SA. | | | | | |
| 4. Sturt Highway - Renmark Intersection Upgrades and Victor Harbor Road/Main Road - McLaren Vale Intersection Upgrade projects are not part of the Nation Building Program funding envelope (2008-09 to 2013-14). These projects have been added to this schedule for adminsistrative purposes only and indicate funding levels drawn from savings ($400,000) and interest ($17,600,000) earned from the $100m payment made on 30 June 2006 under the Accelerated Sturt Highway Upgrade Package MOU between the Australian and the South Australian governments signed on 27 June 2006. | | | | | |

# Tasmania

**Tasmanian Projects being funded under the Nation Building Program 2008-09 to 2013-14**

| Project | Total Estimated Project Cost (outturn dollars) | Total Allocated Australian Government (AG) funding (outturn dollars) | AG Funding provided to 2007-08 inclusive (outturn dollars) | AG Base Funding Contribution 2008-09 to 2013-14 (outturn dollars) | Conditions |
|---|---|---|---|---|---|
| | $m | $m | $m | $m | |
| CONTINUING PROJECTS | | | | | |
| INVESTMENT PROGRAM | | | | | |
| Rail Rescue Package | 78.00 | 78.00 | 16.87 | 61.13 | Australian Government contribution is capped at $78m. |
| Bass Highway | | | | | |
| Wardsway to Hagley bypass | 40.00 | 40.00 | 38.64 | 1.37 | Australian Government contribution is capped at $40m. |
| Penguin to Ulverstone duplication Stage 1 | 29.08 | 29.08 | 28.78 | 0.30 | Australian Government contribution is capped at $29.08m. |
| Penguin to Ulverstone duplication Stage 2 | 42.00 | 42.00 | 34.47 | 7.53 | Australian Government contribution is capped at $42m. |
| **Sum of Continuing Project Funding** | | | | **70.32** | |
| | | | | | |
| NBP (NEW) PROJECTS | | | | | |
| INVESTMENT PROGRAM | | | | | |
| Brighton Bypass | 164.00 | 164.00 | | 164.00 | Australian Government will provide 100% of project costs up to its a contribution level of $164m. Subject to Australian Government consideration, it will provide 50% of any difference in project cost between its contribution level of $164m and the pre-tender cost estimate, with Tasmania to provide the remainder of the cost. Any increase in Australian Government funding above $164m would need to use funding from Contingency and/or be offset within the Australian Government's Total Project Funding to Tasmania. |
| Brighton Transport Hub | 79.00 | 0.00 | | 0.00 | The Australian Government made an election commitment to this project of $56m. These funds have been reallocated to other projects at the request of the Tasmanian Government on the basis that Tasmania will fully fund the cost of the Brighton Transport Hub and that construction will be expedited. |
| Rail capacity improvements at Rhyndaston | 24.00 | 24.00 | | 24.00 | Australian Government contribution is capped at $24m. |
| Upgrade of the Burnie to Western Junction Line | 30.20 | 28.90 | | 28.90 | Australian Government contribution is capped at $28.90m. |
| Upgrade of the Hobart to Western Junction Line | 20.30 | 20.30 | | 20.30 | Australian Government contribution is capped at $20.3m |
| Upgrade of (current) Bridgewater Bridge | 14.00 | 14.00 | | 14.00 | Australian Government contribution is capped at $14m. |
| Planning for Bagdad Bypass and new Bridgewater Bridge | 6.20 | 6.20 | | 6.20 | Australian Government contribution is capped at $6.2m. Funding for construction will be considered in future budgets. |
| Upgrade of the Midland Highway | 5.60 | 4.50 | | 4.50 | Australian Government contribution is 80% capped at $4.5m. Tasmania will meet remaining costs. |
| Improvement of Bell Bay Intermodal Terminal | 9.10 | 5.20 | | 5.20 | Australian Government contribution is 80% capped at $5.2m. Tasmania will meet remaining costs. |
| Main North-South Line rail capacity improvements | 31.60 | 31.60 | | 31.60 | Australian Government contribution is capped at $31.6m. |
| Contingency | 18.55 | 18.55 | | 18.55 | The contingency is provided to fund anticipated increases in the Australian Government contribution for designated projects. |
| | | | | | |
| OFF-NETWORK | | | | | |
| Upgrade of the Fingal Line | 5.70 | 5.70 | | 5.70 | Australian Government contribution is capped at $5.7m |
| Upgrade of the Bowar Line | 1.10 | 1.10 | | 1.10 | Australian Government contribution is capped at $1.10m |

| Project | Total Estimated Project Cost (outturn dollars) | Total Allocated Australian Government (AG) funding (outturn dollars) | AG Funding provided to 2007-08 inclusive (outturn dollars) | AG Base Funding Contribution 2008-09 to 2013-14 (outturn dollars) | Conditions |
|---|---|---|---|---|---|
| | $m | $m | $m | $m | |
| Upgrade of the Melba Flats to Burnie Line | 15.70 | 15.70 | | 15.70 | Australian Government contribution is capped at $15.7m. |
| Kingston bypass | 41.50 | 15.00 | | 15.00 | Australian Government contribution is capped at $15m. |
| Upgrade of North East Freight Roads | 42.50 | 34.00 | | 34.00 | Australian Government contribution is 80% capped at $34m. Tasmania will meet remaining costs. |
| Upgrade of Port Sorell Road | 4.00 | 1.00 | | 1.00 | Australian Government contribution is capped at $1m. |
| Upgrade of Illawarra Link Road | 6.20 | 3.10 | | 3.10 | Australian Government contribution is 50% capped at $3.1m. Tasmania will meet remaining costs. |
| **Sum of NBP Project Funding** | | | | **392.85** | The Tasmanian Government will contribute $1.3 million from its Infrastructure Event Fund to fund rail capital upgrades as part of the amendments announced by Minister Albanese and Minister Sturgess on 7 July 2009. |
| | | | | | |
| **TOTAL PROJECT FUNDING TO TASMANIA** | | | | **463.17** | |
| | | | | | |
| **ROAD MAINTENANCE FUNDING** | | | | | |
| Maintenance Contribution in 2008-09 | | 5.43 | | 5.43 | Formula allocation. |
| Indicative Maintenance Formula Contribution 2009-10 to 2013-14 | | 27.10 | | 27.10 | Based on formula allocations in 2008-09, indicative funding for Tasmania between 2009-10 to 2013-14 is $27.1m. This is subject to revision in the light of revised data each year, including adjustments to the National Land Transport Network. |
| Additional Maintenance Funding 2009-10 to 2013-14 | | 3.90 | | 3.90 | |
| Nation Building additional maintenance in 2008-09 | | | | 1.00 | Maintenance funding only payable if MOU signed by 1 March 2009. |
| **Indicative Sum of Road Maintenance Funding** | | | | **37.43** | |
| | | | | | |
| **TOTAL INDICATIVE FUNDING TO TASMANIA** | | | | **500.60** | |
| | | | | | |
| Notes: | | | | | |
| 1. This schedule does not preclude the provision of additional funding to Tasmania | | | | | |
| 2. This schedule is a baseline document which is not intended to reflect cost increases, reallocations between projects or project savings. Such variations will be separately accounted for on an ongoing basis. They will, among other things, be identified in program figures provided at the time of the Australian Government Budget. | | | | | |
| 3. Subject to agreement, additional funding may be provided by the Australian Government to other Continuing Projects not listed here that do not have capped funding, but this would need to be offset within the Australian Government's total funding to Tasmania. | | | | | |
| 4. This schedule includes amendments to rail infrastructure funding announced by Minister Albanese and Minister Sturgess on 7 July 2009. | | | | | |

## Victorian Projects being funded under the Nation Building Program 2008-09 to 2013-14

| Project | Total Estimated Project Cost | Total Allocated Australian Government (AG) funding (outturn dollars) | AG funding provided to 2007-08 inclusive | AG Base Funding Contribution 2008-09 to 2013-14 (outturn dollars) | Conditions |
|---|---|---|---|---|---|
| | $m | $m | $m | $m | |
| **CONTINUING PROJECTS** | | | | | |
| **INVESTMENT PROGRAM** | | | | | |
| **Hume Highway** | | | | | |
| Albury/Wodonga upgrade | 144.20 | 144.20 | 137.57 | 6.63 | Australian Government contribution is capped at $144.2m. |
| Donnybrook Road grade separation | 39.00 | 39.00 | 23.09 | 15.91 | Australian Government contribution is capped at $39m. |
| **Goulburn Valley Highway** | | | | | |
| Goulburn Valley Hwy upgrading [Arcadia Section project] | 40.55 | 40.55 | 39.83 | 0.72 | Australian Government contribution is capped at $40.55m. |
| **Western Highway** | | | | | |
| Deer Park bypass and upgraded intersection at Leakes Road | 331.00 | 265.00 | 210.57 | 54.43 | Australian Government is providing 80% of funding, subject to Victoria providing 20% of funding. Should project costs exceed $331.25m, the Australian Government will consider a proportionate increase in its funding, but any increase would need to be offset within the Australian Government's Total Project Funding to Victoria. |
| **Calder Highway** | | | | | |
| Calder Hwy between Kyneton and Faraday | 181.20 | 90.60 | 89.00 | 1.60 | Australian Government is providing 50% of funding capped at $90.6m. Victoria will meet remaining costs. |
| Calder Hwy between Faraday and Ravenswood | 219.20 | 109.60 | 99.36 | 10.25 | Australian Government is providing 50% of funding capped at $109.6m. Victoria will meet remaining costs. |
| **Princes Highway** | | | | | |
| Geelong Bypass | 360.00 | 186.00 | 159.03 | 26.97 | Australian Government is providing 50% of funding capped at $186m. Victoria will meet remaining costs. |
| **Port Links** | | | | | |
| Dynon intermodal precinct - grade separation at Footscray Road and Dynon rail link | TBD | 110.00 | 89.88 | 20.12 | Australian Government contribution is capped at $110m. |
| **Rail** | | | | | |
| Bi-directional rail line between Tottenham junction and West Footscray | 45.00 | 45.00 | 27.95 | 17.05 | Australian Government contribution is capped at $45m, which is being provided to the Australian Rail Track Corporation. |
| Wodonga rail bypass | TBD | 45.00 | 0.00 | 45.00 | Australian Government contribution is capped at $45m. Funding includes $20.00m previously allocated under the Upgrade of the Mainline Interstate Railway Track program. |
| Upgrade and standardise the railway track between Geelong and Mildura | TBD | 20.00 | 2.00 | 18.00 | Australian Government contribution is capped at $20m. |
| Port of Melbourne Rail Access Improvement Project | 50.00 | 20.00 | 0.00 | 20.00 | Australian Government contribution is capped at $20m. |

| | | | | | |
|---|---|---|---|---|---|
| **Sum of Continuing Project Funding** | | | | 236.67 | |
| | | | | | |
| **NBP (NEW) PROJECTS** | | | | | |
| **INVESTMENT PROGRAM** | | | | | |
| Western Ring Road upgrade | 1200.00 | 900.00 | | 900.00 | Australian Government funding is capped at $900m within the five year period and is provided on the basis that the Australian Government will provide 75% of project costs subject to Victoria providing 25% of costs within this period. Additional funding will be considered in future budgets. |
| West Gate Bridge | 240.00 | 120.00 | | 120.00 | Australian Government contribution is 50% capped at $120m. Victoria will meet remaining costs. |
| Princes Highway East (Traralgon to Sale) | 175.00 | 140.00 | | 140.00 | Australian Government funding is capped at $140m within the five year period and is provided on the basis that the Australian Government will provide 80% of project costs subject to Victoria providing 20% of costs within this period. Additional funding will be considered in future budgets and will be on the basis of a 65-35% share between the Australian Government and the Victorian Government. |
| Geelong Ring Road Stage 4A (Anglesea overpass) | 125.00 | 62.50 | | 62.50 | Australian Government contribution is 50% capped at $62.5m. Victoria will meet remaining costs. |
| Geelong Ring Road Stage 4B (Anglesea Road to Princes Highway) | 110.00 | 45.00 | | 45.00 | Australian Government contribution is 50% capped at $45m. Victoria will meet remaining costs. |
| Western Highway - Realignment of Anthony's Cutting between Melton and Bacchus March | 200.00 | 160.00 | | 160.00 | Australian Government will provide 80% of project costs up to its a contribution level of $160m, subject to Victoria providing 20% of project costs up to a contribution level of $40m. Subject to Australian Government consideration, it will provide 50% of any difference in project cost between the combined contribution level of $200m and the pre-tender cost estimate, with Victoria to provide the remainder of the cost. Any increase in Australian Government funding above $160m would need to be offset within the Australian Government's Total Project Funding to Victoria. |
| Western Highway - Duplication from Ballarat to Stawell | 520.00 | 404.00 | | 404.00 | Australian Government contribution is 80% capped at $404m. Victoria will meet remaining costs. Additional funding will be considered in future budgets. |
| Western Highway - Upgrade between Stawell and the South Australian border | 50.00 | 40.00 | | 40.00 | Australian Government contribution is 80% capped at $40m. Victoria will meet remaining costs. |
| Nagambie Bypass (Goulburn Valley Highway) | 270.00 | 216.00 | | 216.00 | Australian Government will provide 80% of project costs up to its a contribution level of $216m, subject to Victoria providing 20% of project costs up to a contribution level of $54m. Subject to Australian Government consideration, it will provide 50% of any difference in project cost between the combined contribution level of $270m and the pre-tender cost estimate, with Victoria to provide the remainder of the cost. Any increase in Australian Government funding above $216m would need to be offset within the Australian Government's Total Project Funding to Victoria. |
| Kings Road Interchange (Calder Freeway) | 60.00 | 30.00 | | 30.00 | Australian Government contribution is 50% capped at $30m. Victoria will meet remaining costs. |
| Rail upgrades at Geelong Port and on the Melbourne-Adelaide Line | TBD | 50.00 | | 50.00 | Australian Government contribution is capped at $50m. This funding will be provided to the Australian Rail Track Corporation and/or the Victorian Government subject to consultation. |
| Altona/Laverton Precinct and the Dandenong Intermodal Terminal | 60.00 | 50.00 | | 50.00 | Australian Government contribution is capped at $50m. |
| Somerton Intermodal Terminal | 40.00 | 20.00 | | 20.00 | Australian Government contribution is capped at $20m. |
| Wimmera Intermodal Terminal at Dooen | 9.75 | 6.50 | | 6.50 | Australian Government contribution is capped at $6.5m. |
| Duplication of the Princes Highway from Waurn Ponds to Winchelsea | 220.00 | 110.00 | | 110.00 | Australian Government contribution is 50% capped at $110m. Victoria will meet remaining costs. Additional funding will be considered in future budgets. |
| | | | | | |
| **OFF-NETWORK** | | | | | |
| Springvale Road | TBD | 80.00 | | 79.20 | Australian Government contribution is capped at $80.0m. (NB $25m was allocated to this project in 2006, which is here increased to $80m. $800,000 of this has previously been allocated to Whitehorse City Council for planning studies). |
| Upgrade of the Colac-Lavers Hill Road | 15.00 | 7.50 | | 7.50 | Australian Government contribution is 50% capped at $7.5m. Victoria will meet remaining costs. |
| Clyde Road upgrade | TBD | 30.00 | | 30.00 | Australian Government contribution is capped at $30m. |

| | | | | | |
|---|---|---|---|---|---|
| **Sum of NBP Project Funding** | | | | **2470.70** | |
| | | | | | |
| **TOTAL PROJECT FUNDING TO VICTORIA** | | | | **2707.37** | |
| | | | | | |
| **ROAD MAINTENANCE FUNDING** | | | | | |
| Maintenance Contribution in 2008-09 | | 50.58 | | 50.58 | Formula allocation. |
| Indicative Maintenance Formula Contribution 2009-10 to 2013-14 | | 242.5 | | 242.50 | Based on formula allocations in 2008-09, indicative funding for Victoria between 2009-10 to 2013-14 is $242.5m. This is subject to revision in the light of revised data each year, including adjustments to the National Land Transport Network. |
| Nation Building additional maintenance in 2008-09 | | | | 11.00 | Maintenance funding only payable if MOU signed by 1 March 2009. |
| **Indicative Sum of Road Maintenance Funding** | | **293.08** | | **304.08** | |
| | | | | | |
| **Major infrastructure projects funded in the 2009-10 Budget** | | | | | |
| Victorian Regional Rail | 4300.00 | 3225.00 | | 3225.00 | Australian Government contribution is capped at $3225m. Victoria will contribute $1100m. |
| Victorian East-West Rail Tunnel | 40.00 | 40.00 | | 40.00 | Australian Government contribution is capped at $40m. |
| | | | | | |
| **TOTAL INDICATIVE FUNDING TO VICTORIA** | | | | **6276.45** | |
| | | | | | |
| **Notes:** | | | | | |
| 1. This schedule does not preclude the provision of additional funding to Victoria | | | | | |
| 2. This schedule is a baseline document which is not intended to reflect cost increases, reallocations between projects or project savings. Such variations will be separately accounted for on an ongoing basis. They will, among other things, be identified in program figures provided at the time of the Australian Government Budget. | | | | | |
| 3. Subject to agreement, additional funding may be provided by the Australian Government to other Continuing Projects not listed here that do not have capped funding, but this would need to be offset within the Australian Government's total funding to Victoria. | | | | | |

# Western Australia

| Western Australia Projects being funded under the Nation Building Program 2008-09 to 2013-14 | | | | | | |
|---|---|---|---|---|---|---|
| Project | Total Estimated Project Cost (outturn dollars) | Total Allocated Australian Government (AG) funding (outturn dollars) | AG Funding provided to 2007-08 inclusive (outturn dollars) | AG Base Funding Contribution 2008-09 to 2013-14 (outturn dollars) | Conditions | |
| | $m | $m | $m | $m | | |
| CONTINUING PROJECTS | | | | | | |
| INVESTMENT PROGRAM | | | | | | |
| Great Eastern Highway | | | | | | |
| Midland-Northam passing lanes [The Lakes (Woorooloo) to Northam] | 3.50 | 3.50 | 3.49 | 0.01 | Australian Government contribution is capped at $3.5m. | |
| Great Eastern Hwy - Clackline Bypass | 9.50 | 9.50 | 9.29 | 0.21 | Australian Government contribution is capped at $9.5m. | |
| Great Northern Highway | | | | | | |
| Replace single lane bridges (Bow, Fitzroy, Dunham Rivers) | 60.00 | 60.00 | 57.67 | 2.33 | Australian Government contribution is capped at $60m. | |
| Leonard St to Muchea | 21.20 | 21.20 | 16.55 | 4.66 | Australian Government is providing 100% of funding. Should project costs exceed $21.2m, the Australian Government will consider an increase in its funding, but any increase would need to be offset within the Australian Government's Total Project Funding to WA. | |
| Muchea to Wubin overtaking lanes and widening | 14.00 | 14.00 | 13.93 | 0.07 | Australian Government contribution is capped at $14m. | |
| Great Northern Highway - Muchea to Wubin widening and overtaking lanes | 51.10 | 51.10 | 26.14 | 24.96 | Australian Government contribution is capped at $51.1m. | |
| Eyre Highway | | | | | | |
| Eyre Highway Widening and rehabilitation | 45.00 | 45.00 | 42.90 | 2.10 | Australian Government is providing 100% of funding. Should project costs exceed $45m, the Australian Government will consider an increase in its funding, but any increase would need to be offset within the Australian Government's Total Project Funding to WA. | |
| Network: | | | | | | |
| ITS - Kewdale to Fremantle Port | 1.50 | 1.50 | 0.18 | 1.32 | Australian Government contribution is capped at $1.5m. | |
| ITS - Floodway closure monitoring, Kimberly region | 0.70 | 0.70 | 0.08 | 0.62 | Australian Government contribution is capped at $0.7m. | |
| ITS - Improving weigh in motion data | 0.20 | 0.20 | 0.00 | 0.20 | Australian Government contribution is capped at $0.2m. | |
| Port Links | | | | | | |
| Rail | | | | | | |
| Daddow Road Grade Separation | 19.80 | 14.70 | 0.00 | 14.70 | Australian Government contribution is capped at $14.7m. | |
| | | | | | | |
| Sum of Continuing Project Funding | | | | 51.16 | | |
| | | | | | | |

| NBP (NEW) PROJECTS | | | | | |
|---|---|---|---|---|---|
| **INVESTMENT PROGRAM** | | | | | |
| Great Eastern and Roe Highway interchange | 160.00 | 48.00 | | 48.00 | Australian Government will provide 80% of project costs up to its a contribution level of $48m, subject to WA providing 20% of project costs up to a contribution level of $12m. Subject to Australian Government consideration, it will provide 50% of any difference in project cost between the combined contribution level of $60m and the pre-tender cost estimate, with WA to provide the remainder of the cost. Any increase in Australian Government funding above $48m would need to use funding from Contingency and/or be offset within the Australian Government's Total Project Funding to WA. |
| Upgrade of Great Eastern Highway from Kooyong Road to Tonkin Highway | TBD | 180.00 | | 180.00 | Australian Government funding is capped at $180m within the five year period and is provided on the basis that the Australian Government will provide 80% of project costs subject to WA providing 20% of costs within this period. Additional funding will be considered in future budgets. |
| Perth Bunbury (additional contribution) | 705.00 | 330.00 | 170.00 | 160.00 | Australian Government contribution is 50% capped at $330 million. WA will meet remaining costs. |
| Bunbury Port Access and Outer Ring Road Stage 1 | TBD | 136.00 | | 136.00 | Australian Government will provide 80% of project costs up to its a contribution level of $136m, subject to WA providing 20% of project costs up to a contribution level of $34m. Subject to Australian Government consideration, it will provide 50% of any difference in project cost between the combined contribution level of $170m and the pre-tender cost estimate, with WA to provide the remainder of the cost. Any increase in Australian Government funding above $136m would need to use funding from Contingency and/or be offset within the Australian Government's Total Project Funding to WA. |
| Port Hedland Roads (upgrade of Great Northern Road) | 200.00 | 160.00 | | 160.00 | Australian Government contribution is 80% capped at $160 million. WA will meet remaining costs. |
| Perth Urban Transport and Freight Corridor Upgrade | 700.00 | 350.00 | | 350.00 | Initial Australian Government contribution is 50% capped at $350m. WA will meet remaining costs. |
| Duplication of Dampier Highway | 100.00 | 80.00 | | 80.00 | Australian Government contribution is 80% capped at $80 million. WA will meet remaining costs. |
| Contingency | | 67.50 | | 67.50 | The contingency is provided to fund anticipated increases in the Australian Government contribution for designated projects. |
| **OFF-NETWORK** | | | | | |
| Mandurah Entrance Road | 155.00 | 77.50 | | 77.50 | Australian Government contribution is capped at $70m. |
| New Interchange at the Reid Highway/Alexander Drive Intersection | 72.00 | 10.00 | | 10.00 | Australian Government contribution is capped at $10m. |
| Improved Access to Esperance Port | 180.00 | 60.00 | | 60.00 | Australian Government contribution is capped at $60m. |
| WA Grain Rail | TBD | 135.00 | | 135.00 | Provision of funds is subject to the results of the WA Grain Review. The Australian Government contribution is capped at $135m. |
| | | | | | |
| **Sum of NBP Project Funding** | | | | **1464.00** | |
| | | | | | |
| **TOTAL PROJECT FUNDING TO WA** | | | | **1515.16** | |
| | | | | | |
| **ROAD MAINTENANCE FUNDING** | | | | | |
| Maintenance Contribution in 2008-09 | | 35.92 | | 35.92 | Formula allocation. |
| Indicative Maintenance Formula Contribution 2009-10 to 2013-14 | | 179.55 | | 179.55 | Based on formula allocations in 2008-09, indicative funding for WA between 2009-10 to 2013-14 is $179.55m. This is subject to revision in the light of revised data each year, including adjustments to the National Land Transport Network. |

| | | | | | |
|---|---|---|---|---|---|
| Additional Maintenance Funding 2009-10 to 2013-14 | | 100.45 | | 100.45 | |
| Nation Building additional maintenance in 2008-09 | | | | 10.00 | Maintenance funding only payable if MOU signed by 1 March 2009. |
| **Indicative Sum of Road Maintenance Funding** | | | | 325.92 | |
| | | | | | |
| **Major infrastructure projects funded in the 2009-10 Budget** | | | | | |
| Oakajee Port Common User Facilities | 4000.00 | 339.00 | | 339.00 | Australian Government contribution is capped at $339m. |
| Northbridge Rail Link (the Hub) - Western Australia | 468.00 | 236.00 | | 236.00 | Australian Government contribution is capped at $236m. |
| | | | | | |
| **TOTAL INDICATIVE FUNDING TO WA** | | | | **2416.08** | |
| | | | | | |
| Notes: | | | | | |
| 1. This schedule does not preclude the provision of additional funding to WA | | | | | |
| 2. This schedule is a baseline document which is not intended to reflect cost increases, reallocations between projects or project savings. Such variations will be separately accounted for on an ongoing basis. They will, among other things, be identified in program figures provided at the time of the Australian Government Budget. | | | | | |
| 3. Subject to agreement, additional funding may be provided by the Australian Government to other Continuing Projects not listed here that do not have capped funding, but this would need to be offset within the Australian Government's total funding to WA. | | | | | |

## Table 2: Infrastructure Priorities

| Infrastructure Australia Theme | Priority Projects/Actions ready to proceed (Proponent) | Priority Infrastructure Pipeline projects with real potential (Proponent) |
|---|---|---|
| 1. A national broadband network | National Broadband Network | |
| 2. Creation of a true national energy market | Energy Strategy: Actions for a true national energy grid (to be developed) | |
| 3. Competitive international gateways | National Ports Strategy (to be developed) | Abbot Point Multi–cargo Facility (QLD)<br>Bell Bay Port Expansion (TAS)<br>Bonython Port (SA)<br>Bruce Highway – Abbot Point State Development Area bypass (QLD)<br>Darwin Port Expansion (NT)<br>Donnybrook Inter-modal Terminal (VIC)<br>Hastings Port (VIC)<br>Moorebank Inter-modal Terminal (Commonwealth/NSW)<br>Oakajee Port Common-user Services (WA)<br>Perth Airport Multi–modal Links (WA)<br>Port of Brisbane Motorway Upgrade (QLD)<br>Port of Melbourne Freight Terminal (VIC) |
| 4. A national freight network | National Freight Network Strategy (to be developed)<br>Adelaide rail freight junctions and level crossings – Goodwood and Torrens (SA)<br>F3–Branxton Freeway (NSW)<br>Majura Parkway (Stage 2) (ACT)<br>Pacific Highway Corridor (NSW)<br>Ipswich Motorway Upgrade (Dinmore to Goodna) (QLD) | Advanced Train Management System (ARTC)<br>Bruce Highway Corridor (Brisbane to Cairns including Cooroy to Curra) (QLD)<br>East-West Rail Freight Corridor (ARTC)<br>Green Triangle Road and Rail Upgrades (SA/VIC)<br>Mount Isa–Townsville Rail Corridor (QLD)<br>Northern Connector Road and Rail Corridor (SA)<br>North-South Rail Freight Corridors (including Northern Sydney Freight line and various rail deviation projects) |

| Infrastructure Australia Theme | Priority Projects/Actions ready to proceed (Proponent) | Priority Infrastructure Pipeline projects with real potential (Proponent) |
|---|---|---|
| 5. Transforming our cities | Gawler Rail Line Upgrades (re–sleepering and electrification) (SA)<br>East–West Rail Tunnel (VIC)<br>Gold Coast Rapid Transit (QLD)<br>Regional Rail Express (VIC)<br>Seaford Rail Extension (SA) | Brisbane's Future Public Transport Network (including Brisbane Inner City Rail Capacity) (QLD)<br>Eastern Busway (Stage 2) (QLD)<br>Eastern Busway (Stage 3) (QLD)<br>Fully Controlled Motorways (QLD)<br>Sydney's Future Public Transport Network (including CBD and West Metro) (NSW)<br>Northbridge Rail Link (The Hub) (WA)<br>Melton Duplication and Electrication to Bacchus Marsh (VIC)<br>Mornington Peninsula Connector Road (VIC)<br>Northern Link Road Tunnel (BCC) |
| 6. Providing essential Indigenous infrastructure | Infrastructure for Indigenous Communities Framework (to be developed) | |
| 7. Adaptable and secure water supplies | Water Strategy: Actions for Water Security and Regional Towns Water Quality Review (to be developed) | |

Potential Private Sector Involvement – Many publicly driven projects could be structured to be part–supported or enhanced by private investment and most privately motivated projects could be made certain and potentially enhanced by government funding and/or regulation and/or customer support.

# Appendix E

## Infrastructure Australia Projects June 2010

Table 1: Infrastructure Australia's Reform and Investment Priorities (Proponent, Proponent BCR)(1) (2) (3)

| | Early Stage<br>Initiatives address a nationally significant issue or problem, but the identification or development of the right solution is at an early stage. | Real Potential<br>Initiatives in this category clearly address a nationally significant issue or problem and, there has been a considerable amount of analysis of potential solutions. | Threshold<br>Initiatives in this category have strong strategic and economic merit, and are only not ready to proceed due to a small number of outstanding issues. | Ready to Proceed<br>Initiatives in this category meet all of Infrastructure Australia's criteria. |
|---|---|---|---|---|
| Transforming Our Cities | Melton Rail Line Duplication and Electrification (Vic, $1,300m)<br>Sydney's Future Public Transport Network (NSW; n/a)<br>Gold Coast Rail (SE Qld Mayors; $2,875m)<br>North-West Sydney to CBD Rail Link (AIS; $7,000m)<br>Hobart: A World Class, Liveable, Waterfront City (Tas; $90m) | Brisbane Inner City Rail Capacity Upgrade (Qld; $14,000m)<br>Melbourne Metro Stage 2 (Vic; tbc)<br>*Managed Motorway Proposals: NSW, Victorian, South Australian and Western Australian proposals (NSW, SA, WA, Vic $3,200m)*<br>*Integrating Sydney's Motorway Network*<br>Moreton Bay Rail Link (Moreton Bay Regional Council/ Qld; $1,100m)<br>Darra-Springfield Rail and Road project (Qld; $2400m) | *Support for commitment to urban plans for all cities by 2012*<br>*Jurisdictions to satisfy the Council of Australian Governments criteria in their urban plans*<br>*Jurisdictions to commit to common standards for public transport assessment*<br>South West Rail Link (NSW; $2,400m)<br>Eastern Busway (Stages 2b and 3) (Qld; $825m)<br>*Managed Motorways Proposals – SE Queensland (Qld; $782m)*<br>Northern Link Road Tunnel (BOC; $1,780m) | Melbourne Metro Stage 1 (Vic, BCR = 1.5 (including WEBs), Capex = $4,900m)<br>*Integrated Transit Corridor Development - Route 86 Demonstration, Project (Vic; BCR = 4.0; Capex = $28m)* |
| Adaptable and Secure Water Supplies | An Innovation Strategy for Tasmania: Focus on Food Bowl Concept (Tas)<br>*Non-Urban Water Metering (SA; $105m)* | Water Security Program (ACT; $551m)<br>Tasmanian Water and Sewerage Reform (Tas; $1,000m)<br>Installation of Low Flow Bypasses in the Mount Lofty Ranges (SA; $47m) | | *Infrastructure Australia proposes reforms around planning for water security, independent pricing, competition in bulk supply and consumer choice over levels of reliability* |
| A True National Energy Market | | *Smart Grid Demonstration Pilot Project (ACT; $150m)*<br>Heywood Interconnector Upgrade (SA; $80m)<br>Mid-West Energy – Stage 2 (WA; $785m) | *Infrastructure Australia supports proposed reforms to regulatory provisions regarding connection of remote renewable energy generation and electricity transmission connections between states.* | |
| Competitive International Gateways | Eyre Peninsula Port Proposals (SA, Centrex/WP ; $tbc)<br>Port of Hastings (incl. Peninsula Link rail freight corridor) (Vic; $tbc)<br>Port Hedland Inner Harbour – Capacity Enhancements (WA; NWIOA, Hancock; $3,400m)<br>Road and Rail Access and Port Upgrades at Bunbury (WA, BPA/BWA/SWDC; $756m)<br>Pilbara Cities (WA; $2,900m) | Abbot Point Multi Purpose Harbour (Qld; $2890m)<br>Bell Bay Intermodal Expansion Project (Tas; $150m)<br>*Smart Port ICT (Vic; $16m)*<br>Melbourne International Freight Terminal (Vic; $260m)<br>Gateway WA – Perth Airport and Freight Access (WA; $600m)<br>Road Freight Access to Port Botany and Kingsford Smith Airport – M5 East (NSW; $4000m) | Oakajee Port (potential equity injection) (WA; $4,000m)<br>Darwin Port Expansion (potential equity injection) (NT; $336m)<br>Moorebank Intermodal Terminal (Comm/NSW; $tbc) | |

| | Early Stage<br>Initiatives address a nationally significant issue or problem, but the identification or development of the right solution is at an early stage. | Real Potential<br>Initiatives in this category clearly address a nationally significant issue or problem and, there has been a considerable amount of analysis of potential solutions. | Threshold<br>Initiatives in this category have strong strategic and economic merit, and are only not ready to proceed due to a small number of outstanding issues. | Ready to Proceed<br>Initiatives in this category meet all of Infrastructure Australia's criteria. |
|---|---|---|---|---|
| Competitive International Gateways *(continued)* | | Road Freight Access to Port of Brisbane and Brisbane Airport – Port of Brisbane Motorway Upgrade (Qld; $934m)<br>Road Freight Access to Port of Melbourne – Westlink (Vic; $5,000m)<br>Freight Access to Port of Adelaide – Northern Connector (SA; $1,120m) | | |
| National Freight Network | Australian Digital Train Control System (ARA; $20m)<br>Mount Isa – Townsville Rail Corridor Upgrade (QLD; $788m)<br>Bruce Highway Corridor Upgrades (QLD; n/a)<br>Transcontinental Rail Link – Mildura to Menindee (MDC; $400m) | East West Rail Freight Corridor (ARTC; $n/a)<br>North South Rail Freight Corridors (including Northern Sydney Freight; $n/a)<br>Eastern Goldfields Railway – Freight Gateway Upgrade (West Net; $75m)<br>Advanced Train Management System (ARTC; $500m)<br>Western Interstate Freight Terminal (Vic; $2,314m)<br>Green Triangle Freight Transport Project (SA/Vic; $340m) | | Adelaide Rail Freight – Goodwood and Torrens Junction (SA, BCR = 1.5; capex = $418m)<br>Federal Highway Link to Monaro Highway – Majura Parkway (ACT, BCR = 4.0; capex = $220m)<br>Pacific Highway Corridor Upgrades (NSW, BCR = 1.5; capex = c. $6,000m) |
| A National Broadband Network | | | | National Broadband Network |
| Essential Indigenous Infrastructure | Submissions regarding indigenous infrastructure have been referred to the Coordinator-General for Remote Indigenous Services | | | |
| Total capex | $19,634m | $41,522m | $10,123m | $11,566m |
| Total estimated Infrastructure Priority Pipeline capital costs: $82,845m | | | | |

*(1) See project summaries at Appendix C for explanation of proponent acronyms*

*(2) Potential Private Sector Involvement – Many publicly driven projects could be structured to be part-supported or enhanced by private investment and most privately sponsored projects could be made certain and potentially enhanced by government funding and/or regulation and/or customer support. The opportunity for user pay principles is particularly relevant for projects in the telecommunications, energy and water sectors as well as ports, road and rail freight and urban motorways in the transport sector.*

*(3) Unless stated otherwise, the capital cost and benefit cost ratios are those estimated by the proponent.*

# Appendix F

## Schedule B

## New South Wales

| Project | 2008–09 | 2009–10 | 2010–11 | 2011–12 | 2012–13 | 2013–14 | Total Cth | State/Terr Contribution | Project Total | Specific Conditions |
|---|---|---|---|---|---|---|---|---|---|---|
| | $m | $m | $m | $m | $m | $m | $m | $m | $m | |
| Hunter Expressway | 158 | 35 | 300 | 493 | 303 | 162 | 1,451 | TBC | 1,589 | Funding is to be used for the construction of 40 kilometres of dual carriageway linking the F3 and the New England Highway near Branxton. |
| Kempsey Bypass (Frederickton) (Pacific) | 100 | 40 | 124 | 131 | 223 | | 618 | | 618 | Funding is to be used for the construction of 14.5 kilometres of a four-lane divided highway to the east of Kempsey and Frederickton; approximately 2.2km of bridging over the Macleay River Floodplain; grade separated interchanges at South Kempsey and Frederickton; and the retention of the Pacific Highway as a local road. |
| West Metro (Next Steps) | 91 | | | | | | 91 | | 91 | Funding is to be used only for the engineering and design work for the development of the project. |

## Western Australia

| Project | 2008–09 | 2009–10 | 2010–11 | 2011–12 | 2012–13 | 2013–14 | Total Cth | State/Terr Contribution | Project Total | Specific Conditions Attached to Provision of Funding |
|---|---|---|---|---|---|---|---|---|---|---|
| | $m | $m | $m | $m | $m | $m | $m | $m | $m | |
| Oakajee Port Common User Facilities (equity injection) | | 339 | | | | | 339 | TBC | | Funding to be used for the development of common use port components, including maritime and land-based facilities such as the breakwater, turning basin, channel, navigational aids, and port administration offices.<br>Funding is subject to evidence being provided:<br>• of detailed negotiation with other potential partners having occurred;<br>• of a final design for delivery; and that the capacity of projects to generate a return on capital has been explored. |

# Northern Territory

| Project | 2008–09 | 2009–10 | 2010–11 | 2011–12 | 2012–13 | 2013–14 | Total Cth | State/Terr Contribution | Project Total | Specific Conditions |
|---|---|---|---|---|---|---|---|---|---|---|
| | $m | $m | $m | $m | $m | $m | $m | $m | $m | |
| Port of Darwin Expansion | | 50 | | | | | 50 | 0 | 50 | Funding to be used for the expansion of the Port of Darwin, including land reclamation, a second rail dump and a new berth, skip loader and conveyor equipment, to deliver improved traffic management to the Port of Darwin and the Alice Springs to Darwin railhead.<br>Funding is subject to evidence being provided:<br>• of detailed negotiation with other potential partners having occurred;<br>• of a final design for delivery; and<br>• that the capacity of projects to generate a return on capital has been explored. |

# Queensland

| Project | 2008–09 | 2009–10 | 2010–11 | 2011–12 | 2012–13 | 2013–14 | Total Cth | State/Terr Contribution | Project Total | Specific Conditions |
|---|---|---|---|---|---|---|---|---|---|---|
| | $m | $m | $m | $m | $m | $m | $m | $m | $m | |
| Ipswich Motorway | 484 | | | | | 400 | 884 | | 2,084 | Funding is to be used to complete the upgrading of 8 kilometres of the Ipswich Motorway between Dinmore and Goodna; upgrading 2.5 kilometres between Wacol and Darra (Stage 2); and planning for the Ipswich Motorway between Darra and Rocklea. |

# South Australia

| Project | 2008–09 | 2009–10 | 2010–11 | 2011–12 | 2012–13 | 2013–14 | Total Cth | State/Terr Contribution | Project Total | Specific Conditions |
|---|---|---|---|---|---|---|---|---|---|---|
| | $m | $m | $m | $m | $m | $m | $m | $m | $m | |
| Gawler Rail Line Modernisation | 14 | 36 | 62.1 | 96.2 | 85.2 | | 293.5* | | 293.5 | Funding to be used for the acceleration of renewal on the Gawler line. |
| Noarlunga to Seaford Rail Extension | 8 | 10 | 54.6 | 123.4 | 95.2 | | 291.2* | | 291.2 | Funding is to be used for the extension of the existing rail line from Noarlunga to Seaford. |

* refer p. 348 BUDGET MEASURES BUDGET PAPER NO 2. 2009-10

# Victoria

| Project | 2008–09 | 2009–10 | 2010–11 | 2011–12 | 2012–13 | 2013–14 | Total Cth | State/Terr Contribution | Project Total | Specific Conditions |
|---|---|---|---|---|---|---|---|---|---|---|
| | $m | $m | $m | $m | $m | $m | $m | $m | $m | |
| Victorian Regional Rail | 150 | 150 | 353 | 600 | 938 | 1,034 | 3,225 | 1,100 | 4,325 | Funding is to be used for the separation of V/Line (regional) and metro rail services between West Werribee and Southern Cross Station, via Sunshine by means of extending platforms and other capital works to enable eight car trains to operate on the Geelong and Bacchus Marsh lines; constructing a new station at Tarneit and duplication of existing tracks between Sunshine and Kensington and the utilisation of disused tracks from South Kensington to Southern Cross Station. The funding is provided subject to the Victorian Government bringing forward early works on the East West Tunnel project to 2012 and giving a commitment to progress water reform. |
| Victorian East-West Rail Tunnel | | | | 15 | 25 | | 43 | | 40 | Funding is to be used for detailed planning and pre-construction work for the project. Funding is subject to agreement by the Victorian Government to bring forward early works on the East West Tunnel project to 2012 and tunnelling to 2014. |

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# FEDERAL-STATE ROAD FUNDING

ROAD SAFETY COMMITTEE
PARLIAMENT HOUSE, SPRING STREET EAST MELBOURNE VICTORIA 3002 T +61 3 8682 2846 F +61 3 8682 2818 www.parliament.vic.gov.au/rsc