AUSTRALASIAN RAILWAY ASSOCIATION INC

Submission to the Senate Inquiry

The Investment of Commonwealth and State Funds in Public Passenger Transport Infrastructure and Services

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1. Executive Summary

Introduction

As the peak body representing the rail industry in Australasia, the Australasian Railways Association (ARA) welcomes this Senate inquiry into investment in public infrastructure and services for public passenger transport. ARA represents the entire rail industry in Australia, including all urban heavy and light rail passenger operators and all infrastructure managers.

The Place of Rail in Providing Public Transport

Rail offers tremendous benefits to society as a highly capable, people-movement transport mode. This derives from a number of aspects being:

- rail's dedicated track in protected corridor takes less urban land-space and is safer – allowing more compact and safer cities;
- rail's speed and reliability owing to dedicated rail corridor;
- rail the lowest emission mode of motorised transport – minimal urban air and noise pollution and greenhouse gas emissions;
- rail readily accommodates human-powered wheeled vehicles e.g. push chairs, wheelchairs, bicycles;
- rail is highly efficient for transporting at peak demands – journey-to-work (JTW), events – particularly between centres and where major trip generators are located with the station/interchange catchment;
- rail's efficient use of oil and land;
- rail's accessibility and social inclusion;
- rail is highly suited to underpin new transit-oriented developments (TOD); and
- public transport, particularly rail passenger transport, enabling people to be active travellers – walking or cycling to the rail station/interchange; road traffic congestion is reduced.

Australia has failed to Capitalise on the Potential of Rail

Whilst rail has been hamstrung by decades of poor planning and massive underfunding, governments are waking up at last to the massive need to fix public transport.

The community requires fully integrated passenger services that optimise mobility for all modes incorporating rail, bus, pedestrian, cycle and urban ferry options, in a seamless mix of transport modes. Rail is an integral and very significant part of the whole urban passenger transport solution.

Public urban and regional / interstate passenger operations have been funded primarily by State Governments since rail was introduced into Australia in the mid 1850s. Most recently the private interstate operator Great Southern Railway began operating in 1997. However the unfortunate legacy of this is typified by what we see today in most cities namely outdated stations, platforms, tracks, signalling systems and trains which mean the networks are incapable of handling the significant increases in passenger numbers in recent years especially in Melbourne, Sydney and Brisbane.

The service difficulties and resultant public frustration with the Melbourne public transport system in the summer of 2008/9 is a powerful example. It shows the fundamental system failure in many of

our capitals, where outdated trains which have been incapable of handling the numbers of people and the heat, and tracks have literally buckled in the heat due to old sleepers.

How has this come about?

This situation has derived principally from the fact that public transport infrastructure has been managed by the States and Territories which have focused infrastructure funding on road systems for both passenger and freight movement. It is noted that a major source of this road funding has been the Commonwealth. Further, jurisdictions driven by elections have focussed on the shorter term whereas major infrastructure needs much longer terms, perhaps 30 to 40 years. Australia as a whole (with exceptions such as WA) has lacked the capacity to plan for the long term for major infrastructure to service urban needs, including major urban growth. Nonetheless, over the last three years, urban passenger rail is experiencing massive growth in patronage; for example, in the peak periods, in Brisbane growth has averaged 7% each year.

The issues around urban transport planning are well known as evidenced by the number of national parliamentary reports which have not been acted upon. In particular, *The Oil Report* (2007) and *Sustainable Cities* (2005) have numerous elements relevant to urban rail that have not been addressed.

ARA believes the Commonwealth's governance and funding of the transport sector needs to change by incorporating sustainability – with its inter-connected dimensions of economy, society and ecology. Together, these reports show that continuation of 'Business-as-Usual' is no longer supportable on the evidence of failing transport systems in cities, spatial division of cities that mirror social and health disadvantage, degrading environmental quality with costly damage to health. Re-orientation is a strong theme throughout these public inquiries.

How do we go forward?

Whilst there have been good separate initiatives targeting road and rail freight transport infrastructure issues (such as the Commonwealth AusLink program), none of these has funded public transport.

Fundamentally this situation has its origins in the governance structure for managing urban passenger infrastructure in Australia. Each urban rail system is managed by a state government which under the pressures of other priorities has generally (WA is an example where this is less of an effect) led to underfunding over the long run. States have not been able or willing to set aside strategic funding for the long term.

All of this is explicable in the federal political context but there can be no excuse – what must occur is long term planning, and linked funding which is set apart. Given the need to act on climate change, it is no longer appropriate for Australia to manage its public transport needs through a politically charged process. The community demands to be given public passenger services that will meet demands and perform to world best practice standards, as well as reduce greenhouse gas emissions.

The good news is that investment in rail infrastructure has been recognised as a priority for national infrastructure funding – support is needed to ensure that funds are allocated responsibly.

A National Transport Planning Authority and Transport Infrastructure Bank

> *'It is clear that government at all levels including the Australian government, needs to provide greater investment in new public transport infrastructure, in order to expand current transport systems and ensure that existing infrastructure and public transport is utilised effectively and efficiently to mitigate effects on climate change'. (IA 2008)*

What is needed now is a planning and funding framework that will transcend the old boundaries of state's jurisdictions and move towards a truly national structure of planning and funding. ARA envisages a structure which incorporates two fundamental components being a national transport planning capacity and a national funding structure.

ARA recommends the establishment of the new National Transport Planning Authority (NTPA) accountable to COAG. Its brief would be to develop the National Strategic Transport Plan and to guide the effective disbursement of government funds to meet transport infrastructure needs in the long term (30 to 40 years). These funds would be held and managed by a proposed Infrastructure "Bank" which would be funded jointly by the Commonwealth and States, and would disburse funds according to the National Plan, on behalf of COAG. Funds would be targeted towards optimising the public transport mix in cities and major arterial roads.

The NPTA would work with States and Territories to integrate planning and investment cycles for infrastructure and town planning, with a clear focus on the national benefit to be derived from optimal development of transport in cities and major arterial transport links. Its brief is clearly passenger and freight movement by land. The NTPA membership would include high level representation from all jurisdictions including the Commonwealth, Infrastructure Australia, the proposed Infrastructure Bank, and NTC. It would be advised by industry and key stakeholder representatives including UITP, ARA, ATA, AAA, and others.

RECOMMENDATIONS

1. That the National Transport Planning Authority (NTPA) be established to provide nationally coordinated transport planning in Australian Cities and Regions for passenger and freight rail. The NTPA would be accountable to COAG.
2. That a National Strategic Transport Plan be developed and implemented for national and holistic coordination of policy, governance, funding and delivery assurance, and responsibility for performance outcomes. This would include long term planning for both passenger and freight in rail.
3. That the role of the Building Australia Fund be augmented to accommodate long term funding for transport infrastructure and service delivery. Investment would be contingent upon the National Strategic Transport Plan.
4. That the Commonwealth government adopt a role to coordinate investment in infrastructure and service delivery in public passenger transport, and adopt new collaborative arrangements with the States and Local Government and other stakeholders to achieve better functioning cities and towns for people's mobility.
5. The ARA recommends the Senate Committee closely consider *A National Transit Strategy for Canada,* proposed by the Big City Mayors' Caucus of the Federation of Canadian Municipalities, as a suitable model to adapt for Australia. **[s.11.2]**

6. That the following issues around urban transport planning as evidenced in previous national parliamentary reports be acted upon as part of the Committee's deliberations **[ss. 4.1, 4.2, 4.3, 8.2, 10.2 – 10.7];**

The Oil Report (2007) - On reducing oil-dependency

Recommendation 2

[3.145] The Committee recommends that in considering a less oil dependent policy scenario, the Government take into account the concerns expressed in the World Energy Outlook 2006, namely :

- *current trends in energy consumption are neither secure nor sustainable; and*
- *energy policy needs to be consistent with environmental goals, particularly the need to do more to reduce fossil fuel carbon dioxide emissions.*

The Oil Report (2007) - Investigation into hypothecation of congestion charges

Recommendation 7

The Committee recommends that Australian governments investigate the advantages and disadvantages of congestion charges, noting that the idea may be more politically acceptable if revenue is hypothecated to public transport improvements (as has been done in London, for example).

The Oil Report (2007) - Corridor strategy planning

Recommendation 9

The Committee recommends that corridor strategy planning take into account the goal of reducing oil dependence as noted in recommendation 2. Existing AusLink corridor strategies should be reviewed accordingly.

The Oil Report (2007) - Reforming the FBT concession [s10.3]

Recommendation 10

The Committee recommends that the government review the statutory formula in relation to fringe benefits taxation of employer-provided cars to address perverse incentives for more car use.

Sustainable Cities (2005)

Recommendation 6

The Australian Government significantly boost its funding commitment for public transport systems, particularly light and heavy rail, in the major cities. (Recommendation 6 (ii), and the inclusion of sustainability criteria in transport infrastructure funding.

Recommendation 7

The Committee recommends that the provision of Australian Government transport infrastructure funds include provision of funding specifically for sustainable public transport infrastructure for suburbs and developments on the outer fringes of our cities.

The Heat is On (2003)

Recommendation 13

The Committee recommends that the Commonwealth Government incorporate the reduction of greenhouse emissions as a central objective across the whole-of-government and in all policy formulation. All relevant areas of Government, including transport and treasury, should be required to include greenhouse abatement in policy development and report on progress in their annual reports.

Recommendation 18

The Committee recommends that state and territory governments adopt the reduction of the greenhouse intensity of energy supply and transport as a key criteria in the assessment of new projects.

7. That this Committee note the significant concerns of the rail industry relating to potential impacts of the Carbon Pollution Reduction Scheme (CPRS) **[ss 8.2, 10.2]**.

8. That this Committee consider these recommendations and refer their considerations to the Henry Review:

   - to review all taxes and subsidies that support car use, in urban and rural areas;
   - signal a decision to progressively save tax revenue for redirecting to a fund for improving public transport (& sustainable urban transport); and
   - remove the FBT concession for cars, fuel and car parking; first, within two years, remove the statutory formula or any incentive to increase annual kilometres driven in the vehicle, or failing this, introduce sustainable travel incentives. **[s10.3]**

9. The ARA recommends that funding be supported for 'travel demand management' and evolution of programs and their administration by the Commonwealth **[s10.5].**

10. The ARA supports the principle, with amendment to detail, of the *Sustainable Cities* Report's.

Recommendation 10

The committee recommends that the Australian Government provide adequate funding to develop new programmes and support existing programmes, such as TravelSmart and the National Cycling Strategy, that promote and facilitate public and active transport options.

[ss 10.5, 10.6]

2. The Australian Rail Industry

2.1 About the ARA

The Australasian Railway Association (**'ARA'**) is a member-based association that represents the interests of the rail sector in Australia and New Zealand.

Members include all Australian urban and regional passenger rail operators both Government and privately owned. Within the family of passenger transport modes[1], there are a number of

[1] Vuchic Vukan R. (2007) *Urban transit systems and technology,* John Wiley & Sons, Inc. This text, and predecessor (Vuchic 1999) is invaluable for examining the role of public transport in urban development, as well as the modes, categories of system performance and technologies, and inter-dependencies. Professor Vuchic, University of

categories by geography, function, and technology, including distinctions between heavy rail, light rail, and metro rail. In Australia, from a national perspective:

- interstate network (for passenger and freight transport including Adelaide-Darwin);
- within intra-state regional networks, centring on the State capital cities (other than Tasmania); and
- urban networks with functions of express/speed service, metropolitan, tram/light rail and monorails - using a range of technologies (heavy, medium/metro, light, monorail) on fixed-tracks both on-street but principally with separate corridors with right-of-way.

Additionally, ARA covers all major freight operators, rail track owners together with private sector industry providers of infrastructure construction and maintenance, signalling and communications equipment and rolling stock manufacturers and maintenance. It is fair to say that ARA speaks on behalf of the entire Australian rail industry.

The fundamental purpose of the ARA is to create a situation that will permit the Australasian rail industry to thrive.

It is our view that such a goal will only be achieved by uniting efforts; that is why the ARA has established two companies to address, in a unified approach, issues such as standardisation of rail practices across Australia and rail skills shortages. These two companies are:

- the Rail Industry Safety and Standards Board (RISSB) which manages the production of Rules, Codes of Practice, Standards and more recently the creation of Guidelines; and
- the Rail Skills and Careers Council (RSCC) which focuses on the human resources in rail, oversees the efficient development of projects such as the Attraction and Retention Project, the Graduate Program and the school-based TAFE and Employment program.

ARA assists its members by providing relevant information on a wide range of topics affecting the rail industry including Rail Research, Communications and Infrastructure.

ARA is also actively involved in the development of policy to ensure that the rail industry's views are represented when decisions that affect it are being made. Recently, the ARA has produced two policy documents relevant to urban mobility:

- *National Passenger Transport Agenda (2006);* and
- *Moving People Around Australia (December 2008),* ARA's urban mobility policy.

Both documents are on ARA's website http://www.ara.net.au/site/index.php

Extensive reference is made to these documents.

Rail as Part of Passenger Public Transport

Rail patronage is booming. The rail networks are overcrowded at peak. Rail infrastructure has suffered from under-investment for decades.

Rail serves as the 'spine' for passenger transport in cities owing to rail's capacity to carry large numbers of people, quickly. Rail is invaluable for environmental quality and health – with minimal land-take and emissions (greenhouse, air toxics, noise) and high levels of safety. Rail travel on fixed tracks provides passengers with a smooth and comfortable journey.

Philadelphia, USA has provided invaluable advice to Australian practitioners, on both the west and east coast, particularly on retrofitting urban areas with public transport. The rail distinctions are also made in the Sustainable Cities report that refers to definitions from the American Public Transit Association, page 65, footnote 10.

The following definition of the 'spine' for passenger transport report was given by Dr Andrew Montgomery, WA Department for Planning and Infrastructure :

> *'5.92 Encouraging the use of public transport services can be part of a broader planning strategy to increase diversification around public transport hubs. Dr Andrew Montgomery of the WA Government informed the committee: We are looking at focussing our efforts within the metro area on a development spine – urban corridors and densification or concentration around nodes such as railway stations. We have a substantial programme of transit-oriented development – TOD, as we refer to it here – where we look at developing around all the railway stations. If you go to some of our existing railway stations that were developed 20-50 years ago you will see low-density development right up to the railway station. All of the new stations in our new initiative are being planned as more intense nodes. Again, we are looking at the mix of land uses to attract that. We are adopting more of an incentive based approach rather than a restrictive based approach of saying, 'This is the line and you can't go over it.' Obviously, that is not the approach that is not taken by the sensible people who are working with urban growth boundaries.' (para 5.92, Sustainable Cities report).*

For passenger public transport, the rail industry promotes connectivity with all other modes of travel facilitating 'seamless travel' from their origins to destinations. The rail industry collaborates with all other passenger public transport providers, as well as road asset managers about road infrastructure (e.g. level crossings, bridges and tunnels) and other representatives relating to people-focussed services, e.g. property managers, urban planners, people with disabilities, cycling groups.

The ARA recognises that policy for 'people movement' requires integration with all modes of transport (private and public road and rail, cycling, pedestrian and ferries) as well as integration with urban planning and management/governance, because of the inter-dependencies between land-use and transport.

Connectivity and landuse-transport integration have been neglected over the last 50 years, with the rise of private car travel. Our cities have become so over-reliant on car travel that harm is being caused to the workings of cities – harm in all dimensions: health, environment, socially and economically.

Benefits of an effective public transport system for urban communities go beyond economic considerations alone. Benefits for the community, the environment and our health affect our very way of life, and extend to greater inclusion of people living in disadvantaged geographic areas.

To advance passenger rail transport service delivery, the ARA fosters collaboration between all passenger rail operators in Australia through its National Passenger Transport Group. This Group undertakes benchmarking, best practice identification and information sharing, and research through the Cooperative Research Centre for Rail Innovation.

It also recognises the considerable technical knowledge and experience in the internationally recognised technical societies such as the Railway Technical Society of Australasia (RTSA), the Institution of Railway Signal Engineers (IRSE) and the Permanent Way Institution (PWI) who collectively bring best practice to bear.

2.2 Policy Development Relevant to the Rail Industry

The ARA can claim to be across contemporary policy thinking and practice about transport, obviously with specialist knowledge in rail.

We recognise the domestic and international attention being given to future decision-making with its sharp focus on:

- achieving actual goals;
- goals that are driven by the need to make cities and urban settlements work better economically;
- goals that serve people's needs to get about (to work, to health services, to shop, to education and socially) in more sustainable places; and
- goals that look at and respond to the full range of impacts, including environmental.

This is represented as a re-orientation or a 'new paradigm'/perspective for urban sustainable mobility[2], albeit one that has been around for over a decade. It contrasts to the existing approach that is failing users, allowing greenhouse gas emissions to grow, and fraught with growing problems of congestion, crowding, and capacity constraints. The urban people-mobility system is choked.

To economists and policy analysts, the existing approach is associated with our institutions that are highly fragmented and incapable of embracing the current challenges. However, change needs to be made carefully because of the sheer and costly physical character of transport infrastructure in real places where people live – hence the significance of identifying obstacles of spatial planning[3]. Nonetheless, it is clear where some initial restorative investment and works are needed to redress decades of failure (in some States) to modernise the infrastructure for public passenger services. Further delay is not warranted.

The ARA has lodged a submission to Infrastructure Australia **('IA')**, the new Commonwealth statutory advisory body on national infrastructure including transport infrastructure[4]. It makes a case for priority in infrastructure needs to be given to funding assistance for a national Australian Digital Train Control System (ADTCS) that would enhance safety and performance of all urban, regional and interstate rail operators, with noticeable benefits to passengers.

To increase the quality of debate and policy development about passenger transport in Australia, the ARA published a report, *National Passenger Transport Agenda ('NPT Agenda')* in 2006, prepared by L.E.K. Consulting, with the support of all urban rail passenger operators across the nation. Its preparation involved wide consultation with major stakeholders. Its focus is on metropolitan public transport, including all public transport modes, not just rail, recognising that all modes have legitimate and complementary roles in getting our cities to

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[2] Represented at the recent World Congress in Sydney for example, by Jeroen Buis; the promotion of transit-oriented-development (TOD); the WA Neighbourhood Code that illustrates and contrasts aspects of urban development that are sustainable and aspects that are not sustainable. This contrasting practice is invaluable for testing performance claims.

[3] The urban form once built cannot be readily transformed. Planners at Western Sydney Regional Organisation of Councils, for example, identified property titles as one of the impediments to urban renewal with transit-oriented-development.

[4] Its primary advisory functions are supplemented extensively to conduct audits, provide advice on policy issues arising from climate change etc, Infrastructure Australia Act 2008.

function better.

Subsequently, the ARA issued its urban mobility policy: *Moving people around Australia: the role of rail in urban mobility*, published in December 2008. This ARA policy picked up the rising concerns about urban transport in Australia – that in many cities the system, speaking authoritatively for rail, is at full stretch and is under-equipped to take up the ever increasing demand in the short to medium term.

There are examples of antiquated infrastructure offered to the customer which is not in keeping with the image of a modern transport system. Further some of this infrastructure has the potential to be unsafe in crowded situations, particularly where station platform space is inadequate. Certainly, for passengers using such infrastructure, the travelling experience is unpleasant, unsatisfactory and a deterrent to people to switch from car to public transport.

It is understandable that the media refer to the crisis in public passenger transport. For example, in December 2008 reporting on Sydney public passenger transport, the NSW Pricing Regulator made the following comments which reflect more on the inability of the infrastructure to deliver required public standards of service rather than against the operator's ability:

- *'the 'CityRail network will reach choking point within four years, even though billions are being spent on new trains and the long-delayed Epping to Chatswood Line.';*
- *'Crowding on trains is worsening by the week, an off-peak ticketing trial that ended in October (2008) has been a dismal failure, and commuters will have to fork out 25% more for their tickets over the next four years.';*
- *'A 50% off-peak discount ticket trial failed to attract more than 1% of commuters because trains did not come frequently enough';*
- *'By 2012 the morning peak will be so busy that new commuters will find no space to squeeze on board. Such overcrowding would quickly collapse the CityRail timetable and undermine its on-time running performance'; and*
- *'Patronage grew by 5.2% this year (2008) but in peak period there were on average 7.2% more commuters. If such growth continued until 2010, 97% of morning peak trains at Redfern would carry more than 135% of seating capacity. On-time running would dive below 70% - 22 percentage points below the government's target'.*

The absence of rail travel in some corridors between large towns is cause of public concerns about road safety and access by young people for education and work[5].

ARA's urban mobility policy also picked up the rising policy concerns for response to:

- fuel reliability with the spectre of 'peak oil';
- ways to reduce greenhouse gas emissions, given that rail is a very low emitter and consumes far less urban land than road-based transport, particularly road space for private vehicle movement and parking – and reduces the ecological footprint of urban communities; and

[5] For more recent data see: Dowling J. (2008) 'Report says one in five motorists have dumped car for public transport' *The Age, Drive Editorial, July 29, 2008*

- human health - environmental pollution caused by private motor vehicles with such damaging effects on health (through air pollution, noise pollution, and sedentariness) roughly equivalent to the number of deaths from road collisions and its cost to the health budget are substantial.

While drawing heavily upon the *NPT Agenda* and its urban mobility policy, this Submission is sensitive to the significant international policy pressures of the global financial crisis and climate change, and how these are to be played out at the domestic national and local levels.

The ARA is highly supportive of an expansion of the Commonwealth government's role in coordinating investment and service delivery in public transport, and new collaborative arrangements with the States and local government and other stakeholders to achieve better functioning cities and towns for people's mobility/movement.

3. The Scope of the ARA's Submission

This submission is made on behalf of members of the Australasian Railway Association (ARA).

The ARA's submission responds directly to the Senate's terms of reference that bring forward two parliamentary reports:

- the 2007 report *Australia's future oil supply and alternative transport fuels*, Senate, Senate Rural and Regional Affairs and Transport Committee[6] ('Oil Report') and
- the 2005 report Sustainable Cities, House of Representatives, Standing Committee on Environment and Heritage [7] (***'Sustainable Cities'* report**);

and to each of the six Terms of Reference (a)-(f).

The ARA sees this structure as a tacit, if not explicit endorsement, by the Committee for a greater share of public investment in public transport to improve services to reduce the modal share to private car travel. This would be necessary for greater sustainability, in the holistic sense, for urban settlements where most people live. We concur with how this was expressed by the UITP in its submission to the Senate Inquiry on oil.

> *'The inclusion of sustainability criteria in funding will enable a more balanced approach to allocation of federal funding for investment in transport infrastructure, potentially in favor of heavy/ light rail and supportive bus systems.'(International Association for Public Transport, Australia and New Zealand **(UITP)** Submission, **Oil Report**)*

The ARA notes that criteria on funding, including for environmental sustainability, were absent from the Infrastructure Australia Act 2008 – see discussion of Reference (e).

The ARA's submission:

- comments upon the two parliamentary reports nominated in the terms of reference and provides additional commentary on another relevant Senate report, notably a 2003 Senate report *The Heat is On: Australia's Greenhouse Future* that canvassed some topics relevant to this Inquiry at greater depth;
- provides some policy context for understanding the newer approach for modernising cities and towns with sustainable transport as well as sustainable buildings; this section on context

[6] As listed in footnote: 5

[7] As listed in Footnote: 5 & 6

- refers to other changes that shape or could frame policy approaches, including
  - the new Federal government in Australia (and the USA) and its policy platform on nation-building;
  - the global financial crisis and its impact domestically relevant to public transport;
  - climate change;
  - health; and
  - governmental policy and performance.
- addresses each of the specific items listed in the terms of reference; and
- makes recommendations, suggestions and raises issues for further exploration and analysis.

4. Australian Parliamentary Reports

The three parliamentary reports reviewed below signal that the Commonwealth's governance and funding of the transport sector needs to change by incorporating sustainability – with its inter-connected dimensions for economy, society and ecological. Together, they show that continuation of 'Business-as-Usual' is no longer supportable on the evidence of failing transport in cities, spatial division of cities that mirror social and health disadvantage, degrading environmental quality with costly damage to health. Re-orientation is a strong theme throughout these public inquiries.

4.1 The Oil Report (2007)

On reducing oil-dependency

ARA strongly supports Recommendation 2:

Recommendation 2

3.145 The committee recommends that in considering a less oil dependent policy scenario, the Government take into account the concerns expressed in the World Energy Outlook 2006, namely :

- *current trends in energy consumption are neither secure nor sustainable;*
- *energy policy needs to be consistent with environmental goals, particularly the need to do more to reduce fossil fuel carbon dioxide emissions.*

Corridor strategy planning

The ARA also strongly supports the Oil Report's Recommendation 9:

Recommendation 9

The committee recommends that corridor strategy planning take into account the goal of reducing oil dependence as noted in recommendation 2. Existing AusLink corridor strategies should be reviewed accordingly.

ARA notes that this practice - as embedded in the Commonwealth government's program AusLink is deficient in accounting for all urban public transport corridors.

Investigation into hypothecation of congestion charges

ARA supports the investigation of hypothecation as recommended:

Recommendation 7

The Committee recommends that Australian governments investigate the advantages and disadvantages of congestion charges, noting that the idea may be more politically acceptable if revenue is hypothecated to public transport improvements (as has been done in London, for example).

Reforming the FBT concession

On the topic of the **FBT concession**, raised in the Oil Report, ARA strongly supports:

Recommendation 10

The Committee recommends that the government review the statutory formula in relation to fringe benefits taxation of employer-provided cars to address perverse incentives for more car use.

The ARA notes that this idea it has been raised repeatedly and that it has now been referred by the Commonwealth government to the review of Australia's tax system (chaired by the Secretary of the Treasury, Ken Henry), announced in May 2008 and due to report in 2010. The scope of this review was described by the Prime Minister as a 'root and branch' review encompassing Australian Government and State taxes, except the GST, and interactions with the transfer system, and investigation into measures to strengthen the financial security of seniors, carers and people with disability.

ARA's view of the unsustainable consequences of this taxation concession, including impediments to workplace 'travel plans' to encourage reduction of car-dependency, and parameters for reform are outlined at Section 10.3 under Terms of Reference (e) below.

4.2 *Sustainable Cities* (2005)

This report aimed 'to direct Australian urban policy onto a path of sustainability by 2025'. ARA's submission emphasised that in establishing sustainable cities, the development of passenger and freight transport networks is a key element.

ARA supports the approach taken in that report: that governance, policy frameworks and planning and settlement patterns are pre-eminent considerations to developing a national approach to sustainable cities. The Committee appreciates that Australian cities have largely been constructed, at least in the last half of the 20th century, around the private car, creating a culture and urban form heavily reliant on private car access (para 5.1), with a multiplicity of transport modes operating in an un-coordinated at the local level, with a hub-spoke feeder format (para 5.5).

In its discussion of urban form, the Committee's discussion is particularly relevant on:

- the drift to the urban fringe and how calculations of housing affordability do not appear to take into consideration the longer term transport costs associated with living in some outer suburbs (under-served by rail);
- the shape and density of our cities will largely determine social connectedness, the transport networks required and the geographic extent of urban settlement; and
- the potential re-shaping the future of our cities, quoting extracts from the extensive

> research by CSIRO modelling of urban re-development scenarios for understanding air quality scenarios[8]

The Committee details the benefits of urban redevelopment and renewal of the middle and outer rings of cities, with an approach to planning which has a holistic regard for building vital communities.

In the context of urban renewal, the ARA supports:

Recommendation 7

The committee recommends that the provision of Australian Government transport infrastructure funds include provision of funding specifically for sustainable public transport infrastructure for suburbs and developments on the outer fringes of our cities.

The Committee's chapter on transport contains considerable discussion and pointed observations, including:

- one particular mode of transport that appears to be overlooked is that of rail, particularly light rail
- enhancing the complementarity of modes (at nodes) through better co-ordination and integration (para 5.8)
- the interconnectedness of the public transport system to essential facilities for walking, cycling and end-of-trip facilities at workplaces (para 5.7)

The chapter quotes the ARA as putting:

…the case for increased use of rail as the safest form of land transport and also the lowest contributor to greenhouse gas emissions, commenting that 'the sustainability advantages of rail are often not taken account in infrastructure investment decisions.'(para 5.45).

The committee argued for and recommended changes to Commonwealth's role in transport infrastructure provision and funding (paras 5.43 to 5.46) extracted at **Appendix 1**; these views are supported by the analysis of ARA in its NPTAgenda.

The ARA strongly supports the Committee's recommendation that:

> *'.....the Australian Government significantly boost its funding commitment for public transport systems, particularly light and heavy rail, in the major cities'. (Recommendation 6 (ii))*

and the inclusion of sustainability criteria in transport infrastructure funding (Recommendation 6 (i)).

Commonwealth Land Transport Funding Programs: AusLink and Roads to Recovery

The House of Representatives Committee on Sustainable Cities, reviewed the two existing Commonwealth government funding programs: AusLink[9] ($11.8 billion), established in 2004, and Roads to Recovery[10] ($1.2 billion), now administered by the Commonwealth Department of Infrastructure, Transport, Regional Development and Local Government.

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[8] Newton (1998).

[9] *AusLink (National Land Transport) Act* 2005.

[10] *Roads to Recovery Act* 2000.

The Committee notes that sustainable transport is not provided for under AusLink. Under the Roads to Recovery program, funds are allocated to the States/Territories through the Grants Commission, based on historical precedents. For each of these Commonwealth funding programs, the Committee referred to a number of options presented in submissions and these are mentioned in Section 7 under Terms of Reference (b) below.

On its vision for governance (paras 3.8-3.13), the Committee observed how it operated in a very different context from a 1992 House of Representatives inquiry into urban settlement[11]. It noted the abundant research on the interdependency of urban development on sectoral issues, e.g. 'public, private and active transport options'. The committee was presented with new evidence about impact of urban living and transport on health and poverty, rather than the traditional approach to road accidents, and the associated costs.

The ARA considers that four years on, the Committee's conclusion remain vital for this new Senate Inquiry; the Committee stated:

5.47 Decisions on infrastructure that are made now will have an impact on future sustainability. The committee reiterates that it is important for decision-makers to understand the interconnectedness of the urban environment settlement and transport environment.

4.3 Senate Report - *The Heat is On* (2003)

The Environment, Communications, Information Technology and the Arts References Committee inquired into the progress and adequacy of Australia's policies to reduce global warming, including the effectiveness and potential improvements to reduce greenhouse emissions, in light of available studies such as trends in transport use of fuels.

This Committee, among many other matters, reported that:

> *…as a whole, transport is arguably one of the weakest areas of the National Greenhouse Strategy **('NGS')**.*

The National Greenhouse Strategy **('NGS'),** 1998-2004 replaced and update the earlier National Greenhouse Response Strategy 1992 **('NGRS'**) [12] as the strategic framework for Australia's domestic greenhouse response. It had been endorsed by the Council of Australian Governments (COAG) following development by Commonwealth, State and Territory governments, with input from the Australian Local Government Association (ALGA), industry and the community. COAG's High Level Group on Greenhouse, comprising senior officials from the Commonwealth, States and Territories, had responsibility for managing its implementation, monitoring, review and further development.

Evidence presented to the Committee highlighted significant limitations in the NGS, including:

- *'the slow pace of implementation planning, the haphazard approach taken by governments in developing greenhouse policy and gaps in programs and action; and*
- *the lack of integration of greenhouse into other strategic Commonwealth policy objectives, including energy market reform, competition policy, taxation, resource management, industry development or transport.'*

[11] House of Representatives Standing Committee for Long Term Strategies, *Patterns of Urban Settlement: consolidating the future?* Parliament House, Canberra, August 1992.

[12] Canberra: Australian Government Publishing Service. ISBN: 0644285834

The Committee identified serious deficiencies in greenhouse performance, those overtly relating to transport were:

- *the rapid and unrestrained **growth in energy emissions** which accounts for over 79 per cent of national emissions, particularly electricity generation and transport, which between 1990 and 1998 increased by 24.3 per cent and 18 per cent respectively;*
- *the **limitations of voluntary programs**, such as the flagship Greenhouse Challenge, to achieve significant, verified emissions reductions;*
- *a lack of commitment to tackle the **structural impediments** to greenhouse abatement;*
- ***the failure to integrate greenhouse policy** with taxation, competition reform, transport, industry, agriculture and energy policy; and*
- *the poor performance of the Commonwealth and most states and territories in meeting commitments under the **National Greenhouse Strategy**.*

On structural change and economic opportunity, the Committee regretted the apparent reluctance of the Commonwealth government:

> *…to tackle the current market structures, particularly in energy and transport, which reward environmentally unsound investment and behaviour (Executive Summary).*

It followed for that Committee to make recommendations which are germane to the current Inquiry:

Recommendation 13

The Committee recommends that the Commonwealth Government incorporate the reduction of greenhouse emissions as a central objective across the whole-of-government and in all policy formulation. All relevant areas of Government, including transport and treasury, should be required to include greenhouse abatement in policy development and report on progress in their annual reports.

Recommendation 18

The Committee recommends that state and territory governments adopt the reduction of the greenhouse intensity of energy supply and transport as a key criteria in the assessment of new projects.

5. Context

At the end 2008, ARA's urban mobility policy set out the desirable outcomes of redesigning the funding of urban transport. It listed some features to design a National Strategic Transport Plan, a plan proposed by COAG reporting to the Australian Transport Council **('ATC')** in 2009 for funding to be allocated, commencing 2010-2011.

We note that sustainability (and even new transport projects) are vulnerable to high flown rhetoric without demonstrable outcomes. For this reason, codes that stipulate that we need less of something and more of something else in detail help to reveal when proposals are counter to the policy objective, say, of sustainability, 'seamless travel', or even 'a transformational experience that will skip two generations' (!). A good example is the WA (1997*) Livable Neighbourhood Code*.

Bottom-up and Top-down planning, performance and accountability

ALGA recognises the significance for people of *"the crucial "first or final" mile can easily become the weakest link in a logistics chain."* And in a similarly human vein, the WHO Commission (2008) articulated a principle of action for reducing health inequalities being to *'Improve the conditions of daily life – the circumstances in which people are born, grow, live, work, and age'* – these include transport opportunities. By treating sustainable transport as a human service, in *Healthy Urban Planning*[13] can offer a household-neighbourhood, lifecycle view of getting around the local neighbourhood to getting further afield by walking, cycling and public transport.

Many people in the community, for example on local government Access Committees, would like to see a form of 'affirmative action' for the disadvantaged conditions for walking, cycling and public transport. From this perspective there is support for the value of 'bottom-up' as well as 'top-down' planning and engagement in which the local people and users/ would-be users participate, such as walkability surveys.

Bottom-up perspectives can contribute to planning and accountability on the fine-grained detail of the physical urban fabric and facilities and treatment of passengers. This approach is described by Fowler (1992), as a legacy from Jane Jacobs (1961), famous author of *Life and Death of American Cities.*

That Infrastructure Australia identified 'expanding public transport services within cities' is a welcome relief to many urban dwellers. Accountability for allocations and expenditures on public transport infrastructure is an element of the Canadian National Transit Strategy[14] proposed by the Federation of Canadian Municipalities.

[13] For WHO, Barton & Tsourou (2000).

[14] Canadian Urban Transit Association (CUTA/ACTU) (2007), 'A national transit strategy for Canada', *Issue Paper* 22, April.

6. Australia's Rail Public Passenger Transport Operators

ToR (a) - An Audit of the State of Public Passenger Transport in Australia

6.1 ARA's Audit of Rail Passenger Transport

Australia's mainland rail public passenger transport infrastructure and service providers are predominantly state-owned and operated entities (with the exception of Veolia Transport (Connex) and Yarra Trams which operate franchised services under contract to the Victorian government on state-owned infrastructure), as shown in the table below. All organisations are ARA members working collaboratively to improve rail industry efficiency, productivity and safety:

State	Organisation	Urban Rail Operator	Infrastructure Owner	Non-Urban Rail	Infrastructure Owner
Queensland	QR (Queensland Rail)	Citytrain	QR	Traveltrain	QR
NSW	RailCorp	CityRail	RailCorp	CountryLink [a]	RailCorp [a]
Victoria -trains	VEOLIA Transport A/asia[b]	Connex[b]	Connex[b]	V/Line Passenger (rail and road-coach)	VicTrack
Victoria - trams	Yarra Trams[b]	Yarra Trams	Yarra Trams[b]	Not applicable	Not applicable
South Australia (trains and tram)	TransAdelaide	TransAdelaide	TransAdelaide	See note [c]	ARTC
Western Australia	Public Transport Authority- WA	Transperth	Public Transport Authority- WA	Transwa (rail and road-coach)	WestNetRail

NOTE:

a. Operate NSW regional train services (on RailCorp track) and road-coach services and interstate rail services Sydney – Melbourne and Brisbane (on ARTC track).

b. Franchised services under contract; track leased from VicTrack.

c. Private operator Great Southern Railway runs passenger services on the interstate track network from Sydney-Perth (Indian-Pacific); Adelaide-Darwin (The Ghan); and Adelaide-Melbourne (The Overland) which also provide for rail travel in SA.

Passenger Rail Patronage

National rail passenger journey data collected and compiled by ARA since 2002/03 shows that passenger journeys have grown by 11.7% in the five years to 2006/07 as follows:

Rail Passenger Journeys (million) 2002/03 – 2006/07

Rail Mode	2002/03	2003/04	2004/05	2005/06	2006/07
Urban Rail	471.03	474.17	477.52	501.34	529.11
Light Rail (Tram)	124.95	124.95	129.63	132.67	136.76
Sub- Total	595.97	599.11	607.15	634.01	655.87
Non-Urban	10.42	9.72	9.08	9.35	11.22
Total	**606.39**	**608.87**	**616.23**	**643.36**	**677.09**

This growth in patronage exceeds population growth and is a significant increase compared to the previous two decades, when patronage only grew by 1.1% p.a. merely keeping pace with population growth, not increasing number of trips.

Over the last 30 years, Australia's public transport mode share has declined significantly as total trip numbers and length of trip grew. Between 1973 and 2003, mode share fell from 12% to 7%. While major cities mode share has been broadly flat over the last 10 years this tends to understate the importance of public transport to functioning cities. For example, the proportion of people who use public transport to access city areas in the morning peak ranges from 35% in Perth, to 60% in Melbourne and over 80% in Sydney. One pitfall in using transport statistics is their level of aggregation; aggregate metropolitan statistics mask the spatial availability of public transport by favouring the actual shortfalls in service levels offered to the customer rather than focussing on the services actually required by the community.

It has been estimated that the 200,000 plus people that commute into Sydney each working day by rail would need 65 freeway lanes and 782 hectares of car parking if they travelled by car.

Rail services minimise resource consumption such as land take and fuel, as covered under Reference C.

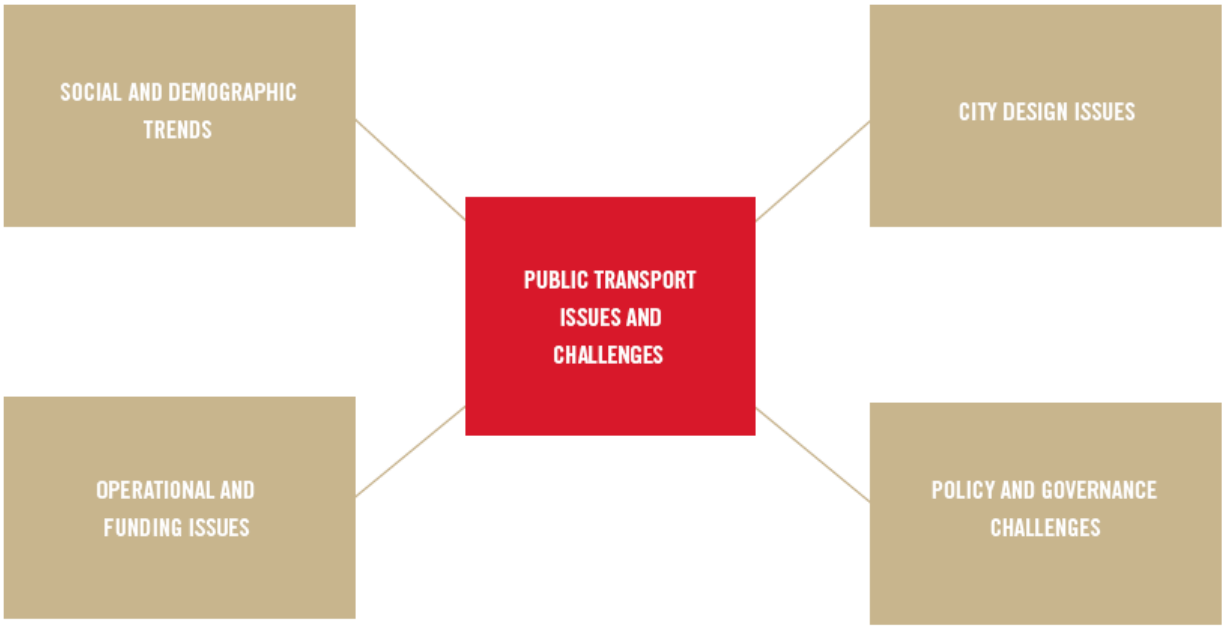
Factors affecting public transport use, urban functions and liveability

The issues are presented in ARA's NPTAgenda in Chapter 1, pp.1-26 and shown in the Figure below.

These issues are set out in NPTAgenda, as identified by L.E.K. Consulting through meeting with a wide range of transport stakeholders across Australia, including public transport operators, Government departments, leading academics and industry commentators as the basis for defining a future agenda (and strategic plan) for the ARA.

Details of these issues relating to rail travel are summarised below.

EXHIBIT 3: PUBLIC TRANSPORT ISSUES AND CHALLENGES



Urban and Demographic Trends

Urban form, population density and centres

Australian cities have a large urban extent, with low population densities typical of car-based cities, typically found in the USA, Johannesburg, and dissimilar to many Asian and European cities.

Low density cities with high car dependency are typified by low public transport mode share, low cost recovery public transport systems and a high overall cost for passenger transport.

Our major cities have been designed around cars and most residents, particularly those in the outer metropolitan areas, are largely car dependent. There are now over 13 million registered vehicles in Australia, or two for every three people, and annual new car sales number around 1 million p.a. Car ownership per person has grown steadily and Australia now has one of the highest car ownership rates in the world.

Greater urban consolidation and concentration of development around 'mixed use' centres widely referred to as 'Transit Oriented Development' (TOD) with transport nodes (stations, or bus/rail interchanges) is a strategic action of the highest priority. Political leadership and long-term committed investment is required to modify the existing urban form to overcome the many economic and social problems it has caused.

Rail, tram and ferry networks largely serve central areas with radial networks. In the large outlying areas of our cities, much of the population has no access to these transport modes,

and bus services are the only viable public transport option. While benchmarks have been established for service levels in some cities, large proportions of the population currently experience service levels below these benchmarks.

Lack of transport access significantly limits employment opportunities in these outlying areas and contributes to social exclusion, a phenomenon documented in other countries[15].

Most States have developed and released strategic metropolitan planning policies with an explicit focus on increasing urban density to reduce urban extent and more sophisticated transit-oriented development. For example:

Melbourne's 2030 planning policy targets 30% of new dwellings in greenfield locations, down from 40-50% historically; and Sydney's Metropolitan Strategy and the South East Queensland Regional Plan incorporate similar objectives.

In Sydney, the plan is to contain 60-70% of new housing to existing urban areas and locate 66% of new dwellings near transit nodes, while the South East Queensland Regional Plan aimed to restrict urban development to areas defined by "Urban Footprints".

From a public transport perspective, these plans represent a policy step in the right direction. A tighter urban form will improve both the mode share and economics of public transport. There is, however, significant pressure on Governments to continue to release cheap land at the urban fringes, not the least because there has been a perceived crisis in housing affordability and the true costs of private transport to households (and the population) are not considered. There is also pressure for high levels of parking provision in infill developments. Giving in to these pressures will simply amplify existing transport problems, and problems of living cities designed inappropriately for modern needs.

Employment Trends

Over the last decade, employment patterns across the country have been changing; the traditional 9 am to 5 pm working day is no longer the 'norm'. There is also now a higher proportion of employees with a varied work week schedule (i.e. flexible working hours such as 40 hours in 4 days), or working part-time. In addition to employees working differently, they are also working longer hours. From 1979 to 1999, the proportion of employees who work 50 hours or more per week increased from 14 to 19%.

The location of work is also changing. CBD employment has been growing in absolute terms, underlining the importance of having strong CBD-bound public transport systems to efficiently move large numbers of people in peak periods. However, the proportion of employment in CBD areas has declined to varying degrees in all of the five largest cities in the period 1981 to 2001 see Table below.

[15] Banister D. (1980).

Employment within CBDs – Percentage of Jobs in CBD

City	1981	2001
Sydney	11.7	11.2
Melbourne	11.4	10.2
Brisbane	14.0	12.9
Adelaide	24.1	21.1
Perth	13.2	8.5

Transport systems are therefore needing to deal with more dispersed employment (and schooling) and travel patterns – geographically and temporally dispersed. Implications of other changing patterns for public transport servicing are examined in the NPT Agenda, including varied workweek schedules, longer working hours, spread of the evening peak, shift from manufacturing to a service economy, multi-purpose trips (work, school, shopping and go home), and reducing household size.

These changing patterns have favoured car use over public transport, particularly with high levels of car ownership per household, although levels of car ownership are highly variable within and between localities within a metropolitan region.

With the existing predominantly radial, city-focussed public transport networks, it has been hard for public transport to serve such dispersed and low volume trip-making; in these conditions, public transport has not been competitive with private cars for these more complex trips, at least for most adults who do have the choice to drive.

Ageing Population

Like many western countries, Australia's population is ageing. Currently, approximately 18% of the population is 60 years or older. By 2021, this proportion will increase to approximately 25%. This has several implications for public transport:

- a higher proportion of people will be eligible for concession tickets and this will lower cost recoveries. Currently, Melbourne and Sydney already forgo annual fare box revenues of approximately $100 million and $200 million p.a. respectively due to concessions. This will increase with the ageing population if concession policies are left unchanged;
- public transport systems must be prepared to accommodate a greater proportion of the customer base who are over 60 in the future by modifying the design of stations, stops and rolling stock to allow for their reduced mobility. The costs of such retrofits are considerable and they are being made slowly, some people would say too slowly; and
- Local government asset management planning/State funding is not yet geared to footpath repairs (or cycling facilities) in the station catchment areas, even for new infrastructure projects to provide 'seamless' travel for people.

Transport's Contribution to Living Costs

Transport costs rose markedly over the 2007-2008 financial year. Transport is generally the third largest item in living costs, after food and housing and also has the second highest rate of growth in all categories.

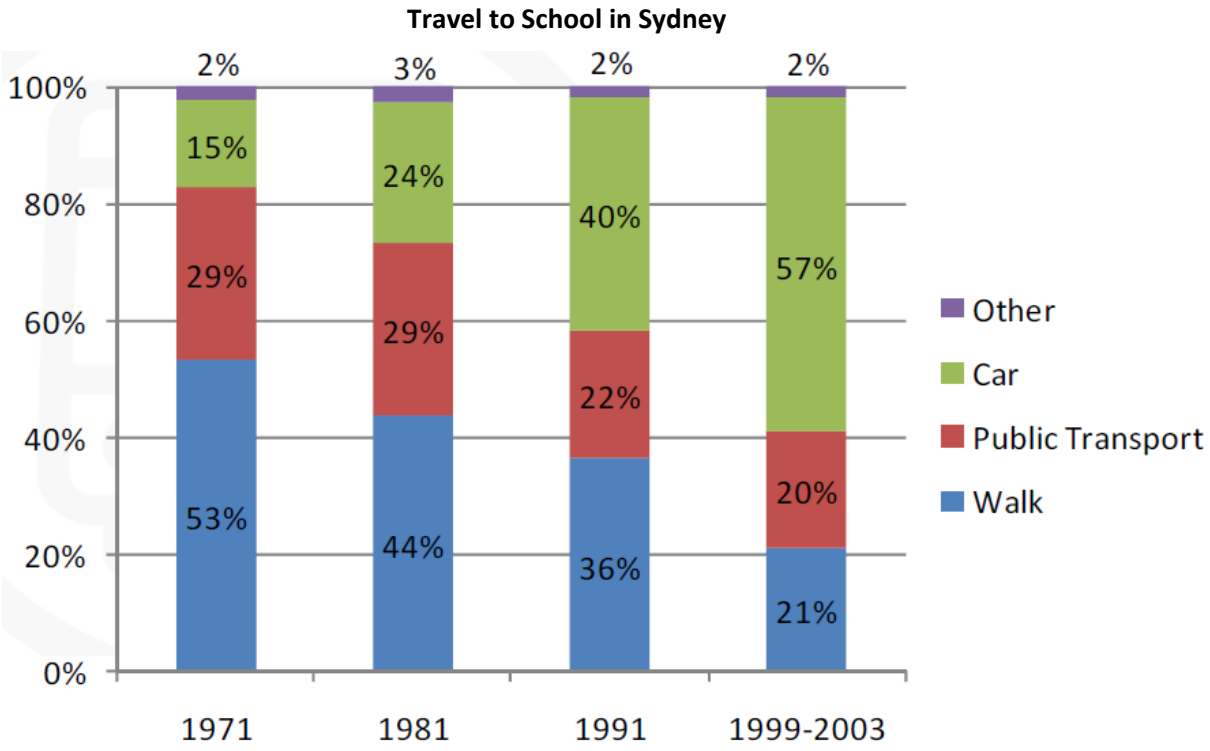
The effect of rising transport costs on categories of people by income status is reported by the ABS below:

	Employee			Age pensioner			Other government transfer recipient		
Commodity group	**Jun qtr 2008**	**Jun qtr 2007**	**% change**	**Jun qtr 2008**	**Jun qtr 2007**	**% change**	**Jun qtr 2008**	**Jun qtr 2007**	**% change**
Food	23.2	22.26	4.2%	29.8	28.91	3.1%	26.9	25.89	3.9%
Alcohol and tobacco	10.97	10.46	4.9%	9.83	9.39	4.7%	13.83	13.23	4.5%
Clothing and footwear	5.35	5.28	1.3%	6.28	6.2	1.3%	5.95	5.88	1.2%
Housing(b)	16.24	15.2	6.8%	23.85	22.44	6.3%	27.55	25.76	6.9%
Household contents and services	12.78	12.9	-0.9%	14.39	14.19	1.4%	13.26	13.19	0.5%
Health	6.66	6.35	4.9%	10.23	9.78	4.6%	4.45	4.27	4.2%
Transportation	**20.95**	**19.54**	**7.2%**	**16.64**	**15.32**	**8.6%**	**16.19**	**14.8**	**9.4%**
Communication	4.45	4.48	-0.7%	4.86	4.89	-0.6%	5.72	5.75	-0.5%
Recreation	16.24	15.99	1.6%	14.6	14.32	2.0%	12.85	12.7	1.2%
Education	4.17	3.99	4.5%	0.22	0.21	4.8%	2.58	2.48	4.0%
Financial and insurance services(c)	19.22	16.15	19.0%	6.96	6.36	9.4%	9.62	8.35	15.2%
All groups	**140.2**	**132.6**	5.7%	**137.7**	**132**	4.3%	**138.9**	**132.3**	5.0%

	Self-funded retiree			CPI(a)		
Commodity group	**Jun qtr 2008**	**Jun qtr 2007**	**% change**	**Jun qtr 2008**	**Jun qtr 2007**	**% change**
Food	23.41	22.71	3.1%	21.76	20.95	3.9%
Alcohol and tobacco	10.22	9.75	4.8%	9.32	8.89	4.8%
Clothing and footwear	4.89	4.81	1.7%	4.8	4.75	1.1%
Housing(b)	14.67	13.86	5.8%	27.21	25.67	6.0%
Household contents and services	15.84	15.59	1.6%	12.12	12.2	-0.7%
Health	12.14	11.56	5.0%	6.58	6.28	4.8%
Transportation	**20.65**	**19.24**	**7.3%**	**18.52**	**17.34**	**6.8%**
Communication	3.76	3.77	-0.3%	4.08	4.08	0.0%
Recreation	21.74	21.19	2.6%	14.75	14.52	1.6%
Education	0.91	0.87	4.6%	3.85	3.7	4.1%
Financial and insurance services(c)	6.58	5.94	10.8%	13.01	11.83	10.0%
All groups	**134.8**	**129.3**	4.3%	**136**	**130.2**	4.5%

Source: ABS Contribution to Living Costs, 2007-2008 -http://www.abs.gov.au

The chart below illustrates the change in transport patterns for children travelling to school in Sydney. Clearly transport has changed to be much less sustainable for travel to schools over the past 30 years with the major move to being to transport in cars, with much less public transport travel. [16]



Comparative Performance of Public Transport and Private Transport: Quality of Journey and Household Expenditure

This strong growth in vehicle ownership has been driven by two factors. Since 1995, the price of cars, (as measured by the Motor Vehicle CPI) has decreased by 3.8% p.a. in real terms making cars 25% cheaper. At the same time, average weekly earnings have grown steadily. Modern cars also have more features that make them much more comfortable and safe to drive. Such features, now readily available in low cost vehicles, have raised the bar for customer expectations of public transport. For example, air conditioning is now considered essential, at least by passengers, on trains, trams and buses yet this conflicts with governments which needs to contain infrastructure (rolling stock) costs.

Once households sink expenditure in cars, for which the variable cost of a journey is not paid at the time of use, there is a deterrence to pay upfront for a trip by public transport.

Fuel Prices

The uncertainty of fuel supplies and strong growth in fuel prices since 2005 has caused a surge in public transport usage, putting further pressure on Australia's public transport capacity in peak periods (household budgets and dissatisfaction with the governments' performance in the public transport portfolio). For example, the 4.2% growth in rail patronage, over the 12 months from April 2005 to April 2006, occurred when petrol rose by 16-17% higher in the

[16] *Climate Change And Land Transport: Achieving Emissions Reduction,* John Stanley and Chris Loader, August 2008

major cities[17]. Similar experience occurred in the USA where, in the first quarter of 2006, public patronage increased by 4.25% over the previous year.

Environment and Health Effects

Rail transport, for passengers and freight, is the most environmentally-friendly and health-promoting of all modes of motorised transport.

Rail passenger transport operators take responsibility for environmental management of their system and are improving its environmental performance.

Rail passenger public transport consumes significantly less land and energy and it generally runs on separated corridors, on- or off-road or underground. These characteristics reduce its ecological footprint and have considerable beneficial consequences over other motorised modes, and rail passenger transport combines well with walking and cycling. The benefits are addressed under Reference C.

Rail Performance: Operational and funding issues

Australia's metropolitan public transport networks face a number of operational and funding issues. These include peak period capacity constraints, poor off-peak utilisation, freight congestion (rail), road congestion (impacting tram and bus) and low cost recoveries. There is also some evidence of inefficient work practices leading to high costs.

Details on these topics are presented in the NPT Agenda.

The critical state was highlighted for example in the NSW Pricing Regulator, quoted above in Section 2.3, showing the need for urgent investment that is well-coordinated – to maintain the existing patronage and to meet projected passenger growth. New technologies in signalling, communications and train control are needed for a modern, effective and safe rail passenger transport service. This situation is paralleled in most other major cities.

Further discussion of ARA's key concern – national funding and co-ordination is under References (d) and (e).

Passenger Satisfaction with Urban Rail Services

Passenger satisfaction with rail and light rail public transport is declining in four of Australia's five major cities, the exception being Perth. Perth has benefitted from successful major expansion of its rail network with good connections to other modes.

The passenger service is struggling and passenger dissatisfaction is highest in Sydney and Melbourne due to over-crowded (some not air-conditioned), unreliable and sometimes cancelled services and some overcrowded and poorly ventilated inner city stations. Services in Brisbane are also under closer public scrutiny.

ARA is aware of the extensive literature and media coverage [18] documenting dissatisfaction with rail passenger services, particularly their limited reach in spreading metropolitan cities as this contributes to the 'divide'. Some Australian studies of public transport needs and satisfaction are conducted with children and young people, women, job seekers, people going to facilities such as health services. Representations, with public submissions, are made by

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[17] For more recent data see: Dowling J. (2008) 'Report says one in five motorists have dumped car for public transport' The Age, Drive Editorial, July 29, 2008.

[18] Bibby P. (2009) '22 million more trips on public transport' *The Sydney Morning Herald* 22 February 2009.

consumer groups to regulators and inquiries.

6.2 Audit Methods and Use in Decision-making

The ARA is aware of various methods for auditing the transport sector, transport services or national passenger public transport, such as by OECD and the European Union. We note that in 2008 the NTC called expressions of interest audits of supply chains for various commodities (grain, livestock etc), but not for people and passenger public transport.

We also note that Infrastructure Australia, with its statutory responsibility to conduct audits, published its Audit Framework, and that it does not appear to incorporate spatial/geographic location or environmental appraisal. For people's accessibility to public transport, location is crucial and spatial demographics and spatial thinking is essential[19].

Nonetheless, the ARA (on behalf of rail passenger transport operators) has access to considerably more data than presented or indicated in this submission. We would be happy to discuss data needs with the Senate Committee.

Above all, the point is not to use data-gathering as a basis for delay. Sufficient information exists to take urgently needed national policy decisions about funding, coordination, new institutional arrangements and legislative reforms. While further information will be useful, there is no case to delay further Commonwealth actions on public transport with urban policy for improved accessibility.

6.3 Conclusions

Economic downturns depress private car use, so it is conceivable that some relief from urban congestion could occur. However, fuel security and supply as well as climate change are over-arching forces that should compel the Commonwealth to act urgently with strategic purpose on public transport, particularly rail transport, for the long term.

[19] ARC Network for Integration Social Science (2007); Balk (2008).

7. Public Investment: Private Vehicle and Public Transport

ToR (b) Current and historical levels of public investment in private vehicle and public passenger transport services and infrastructure

7.1 Shared and Separate Rail Networks for People and Freight

In Australia, road and rail infrastructure has traditionally been built to serve the transport of both passengers and freight. Over time, these functions have (and need to) become increasingly specialised and spatially separated.

On some rail corridors, however, passenger and freight trains share the same tracks even in some segments of urban rail networks. Failure to expand the capacity of rail corridors, by duplication/quadruplication for example, has meant that growth in transport of people and goods has led to inadequate capacity and congestion in rail traffic.

Although rail traffic congestion is not as starkly visible as road traffic congestion, significant capacity constraints during peak hours are causing massive problems in the level of service for passengers in Sydney and in Melbourne. Overcrowding is such a problem that it acts as a deterrent to people by public transport and obscures latent demand for public transport.

To try and eliminate the problems for the urban passenger rail network, the NSW State government has imposed a curfew on the arrival of interstate freight trains.

The Australian Rail Track Corporation **('ARTC'),** set up in the late 1990s by agreement between the Commonwealth and States/Territories has responsibility for managing the national interstate standard gauge rail network (10,000 kilometres) and some regional rail networks in NSW (approximately 1,000 km). Therefore, it has a significant role in critical works to separate passenger and freight rail lines and trains, both north and south of Sydney.

ARTC has commenced critical works for construction of a dedicated Southern Sydney Freight Line, due for completion by January 2010, at a cost of $290 million. Construction of a dedicated rail freight line north out of Sydney involving an initial investment around $800 million, but costing $4.075 billion invested over 10 years has been short-listed as a priority project by IA in the Building Australia Program.

These long-overdue but very welcome works are expected to improve freight reliability and travel times between Melbourne and Sydney and Sydney and Brisbane, and free-up capacity to run additional urban rail passenger trains.

Varying degrees of separation are needed in Australia's other capital cities:

- Melbourne – freight separated from urban rail broad gauge as majority of interstate freight movements are on standard gauge. However, there are issues involving interaction of Urban and Regional passenger rail operations within the metro area. Melbourne's December 2008 Transport Plan also addresses the issues;
- Brisbane – separation of freight and passenger services in the Brisbane metro area is an emerging issue. Already freight services are delayed during peak periods, as in Sydney;
- Adelaide – issues around Adelaide Hills but currently Adelaide metro rail only small issue; and
- Perth – separation of major interstate freight movements and WA metro services is effected by the differing rail gauges.

7.2 Commonwealth Investment in Rail and Roads, and Better Cities (1991-1997)

Responsibility for urban public transport has long been regarded as the responsibility of the State/Territory rather than any power having been granted to the Commonwealth under the Australian Constitution.

In the previous 30 year period, 1974 to 2004, the Commonwealth government spent $58 billion nationally on all roads and only $1.8 billion on urban public transport.

During the same period the only one Commonwealth government program for urban public transport was the *Better Cities Program* (1991-1997) when $816 million was provided. Commonwealth funding for urban public transport was allocated under the following legislation:

- Australian Land Transport Development Act
- Australian Bicentennial Roads Development Trust Fund Act
- Australian Centennial Roads Development Act

Commonwealth funding (and governance) contributed in Queensland, for example, to the following projects:

- Duplication of the inner city rail tunnels in Brisbane;
- Gold Coast Railway; and
- Car parking facilities at Citytrain rail stations.

In 2004, AusLink was introduced by the Commonwealth government to improve decision-making and funding for national land transport (road and rail) infrastructure. At that time there were many 'submissions from industry and the public supporting a need for governments to better coordinate and resource their roles in infrastructure while developing national solutions.

For the 2004-2013 period under AusLink, however, public transport remains excluded from Commonwealth funding.

7.3 State/Territory Expenditures and Fares

This is discussed in detail in the NPTAgenda but the following extracted information is of importance to this submission.

In five major cities, State governments spend an estimated $4.9 billion per annum of which fares from passengers contribute around $1.6 billion per annum. Thus the shortfall $3.3 billion per annum is made up from State governments' revenue to meet annual operating costs. Therefore, the cost recovery from passenger revenues for operating costs, known as the 'farebox' is 32% on average.

These figures exclude significant capital works that are required to upgrade and expand transport systems, which can add another $1-2 billion per year or more over and above operating costs.

The cost recoveries of Australia's major cities range from 20-34%. Some modes, particularly buses serving high density routes, operate at higher cost recoveries and some lower. Historically our cities compare poorly with the cost recovery figures of many other

international cities.

Across the world, most public transport systems require significant government subsidies. The level of subsidy depends upon a wide range of factors such as fare levels and concession policies, city characteristics (population density, topography), cost elements (labour, fuel), the degree of modal competition – but in essence, a social policy either by intent or by an increase in proportion of the population entitled to public transport concessions.

While fare levels vary significantly around the world, there is no strong evidence that Australian fares are particularly low by international standards. There are some heavily discounted fares in some cities but overall Australian cities are around the international average for fares. Fare levels do not therefore appear to fully explain the low cost recoveries.

Although fares do not appear to be the cause of low cost recoveries across Australia, liberal concession policies are a material factor. In Victoria in 2005, for example, approximately 50% of the population was entitled to concession tickets. Concession tickets are not only available for pensioners and seniors, but they are also available for students and health care beneficiaries. There are strong policy grounds for offering discounted travel to disadvantaged members of the population; however it is perhaps questionable whether 50% of the population should fall into this category.

Across modes, buses tend to sell the most concession tickets with the proportion of concession trips ranging from 33% to 76%. Concession travellers on buses, however, are mostly students. Rail operators generally sell fewer concession tickets, with the proportion of concession trips ranging between 30% and 60%.

Whilst concession issues are a matter of policy for Governments, they do substantially impact cost recovery. In 2005, approximately $100 and $200 million of farebox revenue was foregone in Melbourne and Sydney respectively due to concession discounts.

Currently, approximately 18% of Australia's population is 60 years or older. By 2021, this proportion is expected to increase to approximately 25%. If current concession policies remain, public transport systems are likely to have even lower levels of cost recovery.

7.4 Urban Growth without Public Investment in Rail

The Sustainable Cities report quotes the Planning Institute of Australia as highlighting the lack of funding for rail infrastructure, pointing out that there is no designated Commonwealth funding programme for urban railway infrastructure similar to those for freeway construction:

> *'5.46 The PIA also highlighted the lack of funding for rail infrastructure, pointing out that there is no designated Commonwealth funding programme for urban railway infrastructure similar to those for freeway construction. This is 'severely out of tune with urban transport funding regimes in practically every other OECD country' and explains why 'Australian urban rail systems have been struggling to keep up with the pace of metropolitan growth'.29 This means outer suburbs are highly car-dependant. The Institute recommends a 'significantly boosted federal commitment to upgrading and expanding fixed public transport systems'.*

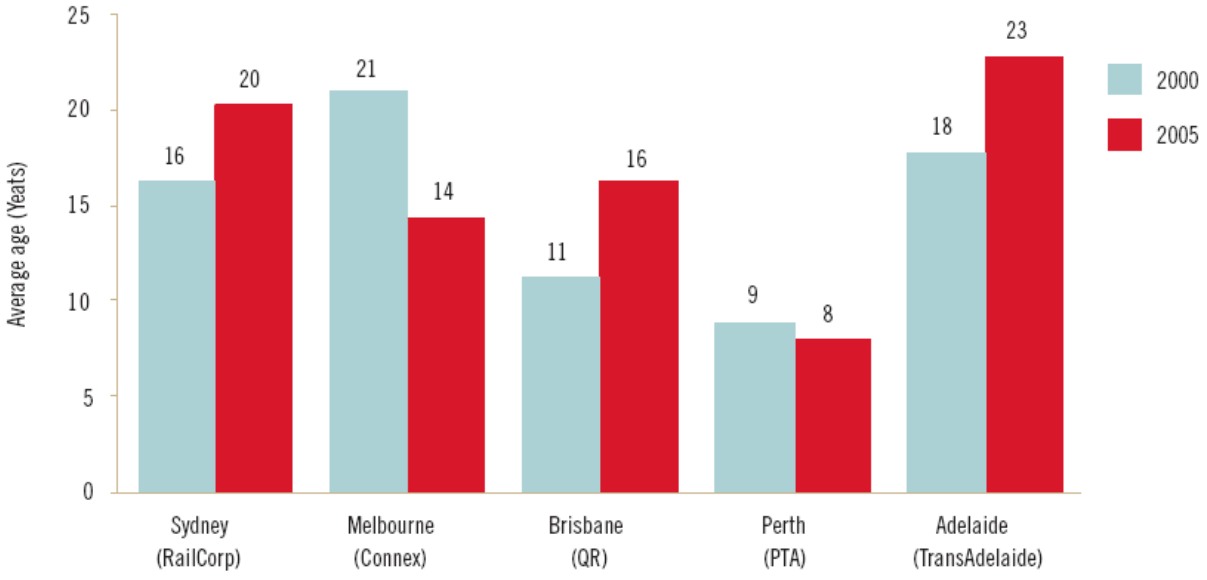
For many decades, Australian cities been developed in 'green fields' in new outer suburbs, at low densities and without mixed-use centres, insufficient to support fixed-track systems. In regional plans, only roads were provided for use by private vehicles (and cheap fuel) for people who could afford and were able to drive. The staging of development on new estates

militated against financially viable bus services so that incoming residents had no choice other than to own a car. Nonetheless, the level of car ownership is highly variable across households even across local government areas in outer rings of large cities.

The growth in the number (and use) of private vehicles, and distances travelled by car exacerbated the deterioration of urban environmental quality. This has become a chronic health burden particularly for people living in disadvantaged polluted areas.

A car-dependent urban form has a dynamic to continue to enlarge space and services for cars and car users, forgoing other options for the use of urban public space or other benefits. For example, the allocation of road space for car parking rather than for safe cycling or widening footways for walking, for landscaping, or for cafes and other incentives to users/car industry, is identified later for Reference (e). Ironically, income from on-street parking to local government further entrenches the primacy given to cars, above more efficient use of the road space such as the conversion of lanes to bus lanes or safe cycleways.

EXHIBIT 25: AVERAGE AGE OF AUSTRALIAN METROPOLITAN ROLLING STOCK FLEET
Average age of rolling stock fleet



Source: Rail Operators

Car dependency is sometimes illustrated by the fact that cars are used for even very short trips – trips that are walkable or cyclable, many of which would be within the catchment of a suburban railway station.

The urban form and the household investment in cars has led to the challenge for urban renewal, one being taken up in many major cities of the world that had become car dependent – we can learn from them, as indicated by some suggestions in Section 11 under

Terms of Reference (f), international best practice.

The state of investment in rail passenger transport can be seen through illustration from the age and replacement rate of rolling stock. Over the five years to 2005, both Melbourne and Perth introduced new rolling stock in this period which is reflected in the Exhibit above. Poor services and presentation of public transport are a deterrent to people who do have the option of car travel.

7.5 State Funded Major Rail Projects

There have been several large passenger rail projects over the last few years, funded mostly by the States, few of which have provided any material capacity expansions; an exception is the Perth-Mandurah rail line.

Most of the major projects that have occurred, or are expected to start, achieve only modest gains to their respective networks' capacity. In fact, most projects have added less than 2% of additional track to their respective systems.

By contrast, when Perth began electrification of its small urban rail passenger in network in 1988 it also planned the construction of a new line to the northern suburbs, its first new line in a century. The new line opened in late 1992 and involved spending in 1992 values $171 million (infrastructure) and $106 million (rail-car manufacture).

More recently, the 72 Km Perth-Mandurah new line opened in December 2007.

Both involve the concept of Transit Oriented Development ('TOD') at selected major rail stations with bus connections. The Northern line was extended to meet demand for transport from urban development.

The Perth-Mandurah rail line features railway stations as part of an inter-modal interchange (typically bus/rail connections with cycling facilities) supporting/being supported by mixed use development in the geographic walking catchment ('TOD'). It is intended to avoid the growth in private motor traffic that occurs with denser development and to avoid sprawl, two pitfalls of urban development canvassed well in the *Sustainable Cities* report.

Perth was able to build these new rail projects without the constraints imposed on Sydney and Melbourne.

The NSW government is proceeding with plans for the CBD Metro, funded exclusively at a cost of $4.8 billion (excluding funds for infrastructure and services for walking and cycling in stations catchments). As a different technology to heavy rail, the NSW government is currently conducting a feasibility study, funded by the Commonwealth, for a West Metro – for which Commonwealth funding would be essential.

A new Commonwealth governing arrangement could be responsive to the differing stages and processes for strategic public transport planning in the States/Territories and to the differing infrastructure priorities; for example, Queensland's passenger rail priorities are more likely to lie in track capacity and rolling stock whereas NSW's priorities may lie in signalling, communications and train control.

Options for Commonwealth involvement can extend beyond grants, as considered under Reference (d).

7.6 Costs to Commonwealth of Neglecting Investment in Public Transport

The Commonwealth government does not yet have any significant role in public transport, with regard to funding, policy or planning. This vacuum is despite Commonwealth and State policies urging the greater use of public transport over cars.

Metropolitan transport and land planning is conducted both at a State and local government level, and strategies are undermined by vested development-short term political interests. Metropolitan public transport infrastructure (track and rolling stock) are funded and managed solely by State governments subject to State-based political/electoral priorities.[20]

Commonwealth policies, outside transport, that have urged greater use of public transport, walking and cycling, in place of reliance on car travel, include:

- a national strategy to reduce greenhouse gas emissions; (NGS 1998)
- integration between land-use and planning, leading to a national charter (ATC 2003);
- environmental health policies to reduce exposure to air pollution from motor vehicles; and (EnHealth 1999,2000)
- overweight and chronic disease policies to encourage 'active travel' for health rather than sedentary driving that contributes to body weight gain(Bauman 2002; Wen & Rissel 2006, 2008). All these policies are seeking to deal with the adverse effects of de facto transport policy.

Access by public transport is relevant to household expenditures and housing affordability, as well as social housing.

Transport policy failings cause harms, and costs that are borne privately or through the public purse, albeit through other sectors such as health, police, and environment and locally, the liveability of our urban habitat.

7.7 International Comparisons on National Spending on Public Transport

This snapshot of comparative funding practices shows that national governments fund public transport (often termed 'transit') infrastructure and recurrent costs for operations.

Australian Professor Currie[21], writing on Australian governments' involvement in public transport compared our situation unfavourably with the situation in Europe, at least as it was in the mid-1990s.

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[20] Patent priority-setting, as sought through the IA process, and more recently canvassed by the Obama administration for an Investment Bank for Economic Recovery (Ehrlich & Rohatyn 2008). The Carr government's *Action for Air: the NSW Government's 25 year Air Quality Management Plan*, based on a $1m research program on the Metropolitan Air Quality Study that was launched during a period of the fastest growth in motorway building in NSW (the M2, Eastern Distributor, and approval for the Western Sydney Orbital, the M7); subsequently the NSW Minister for Transport publicly urged people to buy cars, and Treasury restricted funding the Parramatta-Chatswood rail project, cutting the Parramatta-Epping link and even delaying the Epping-Chatswood link.

[21] Currie G (2006) 'Three 'Tear' Government Involvement in Australian Public Transport – Failures and Opportunities' AITPM National Conference Melbourne August 2006.

'Europe

'European countries show a distinct bias for Federal sourcing of funding for capital investment in urban transit with 100% of capital coming from national governments in Italy, Spain, Ireland, and Greece and most from almost all the other European countries studied. Europe also has substantial funding for urban mass transit system development from trans-national agencies such as the EU. Federal Government are also involved in funding recurrent expenditure in urban transit although this is at a far lower share of total funding compared to capital (Halcrow Fox, 1995). The principal funding source in Europe is farebox revenue due to high patronage levels associated with the dense nature of European cities.

There are several examples of innovative and sustainable funding sources for public transport in Europe such as the congestion charging scheme in London. However there is no evidence that the Federal Governments in the US or Europe are targeting funding at roads rather than Public Transport as Australia does; quite the reverse'.

Federal funding of major transit development projects is the norm in Europe - Table below.

Public Transport Capital Funding Europe
Funding Sources (% of Capital)

Country	Fares/ Commercial	National Government	Local Government	Hypothecated Tax
Belgium	-	Some	Most	-
Denmark	-	Bulk	Some	-
France	-	30%	Remainder	Some
Germany	-	50-75%	Remainder	Some
Greece	-	100%	-	-
Ireland	-	100%	-	-
Italy	-	100%	-	-
Luxembourg	-	100%	-	-
Netherlands	-	50-80%	Remainder	-
Portugal	-	Most	Some	-
Spain	-	100%	-	-
United Kingdom	For Bus	Most	-	-

Source: Halcrow Fox 1995

North America

The policies of the USA and Canadian governments provide a strong contrast to the Australian Commonwealth government's 'hands-off' approach to passenger transport. These two countries, like Australia, also have three layers of government (Federal, State and Local) and have some similarities in terms of cities of large geographic extent, variable urban density (high, medium and low), characterised by car dependence with high geographic variability.

USA

In the USA, the Federal government has a direct role in urban transport. It provides 25% of funding for passenger transport, the other 75% coming from State and Local Government.

Federal funding is directed not only to modernisations of rail, but also new starts of heavy and light rail systems in cities, and financial assistance particularly to bus operators for cleaner vehicles.

Canada

The Canadian Government has historically had a much smaller role in funding of public transport than the USA, but has established two funds. The Canada Strategic Infrastructure Fund seeks to establish partnerships between all levels of government and the private sector to invest in large scale projects of national and regional importance. Maximum Federal contribution is 50% of eligible costs. Investment categories include local transport infrastructure, as well as other infrastructure categories (telecommunications, water etc).

Canada established the Green Municipal Fund, for loans and grants, and a CDN$50 million Enabling Fund for sustainable community developments for transport and other projects. To make comparisons with Australia, it would be necessary to consider funding through environmental programs.

In addition to funding, Transport Canada's policy group provide advice on how transportation policy issues fit within the broader government agenda. In particular the role of the policy group is to develop, recommend and coordinate modal and multi-modal policies.

These two North American examples describe quite different levels of Federal involvement in passenger transport. In the case of the US, there is direct funding and assistance, as well as planning support and, via the Transportation Research Board, research and knowledge transfer. The Canadian government is providing some targeted support for infrastructure more broadly, as well as tax breaks for public transport use and some limited overall policy and coordination.

In comparison, Australian Commonwealth government has had an insignificant role in passenger transport. The ARA believes that needs to change.

7.8 Commonwealth Interests in the Passenger Rail Industry

In addition to the hidden costs of funding private motor vehicle travel relative to rail infrastructure and services, further disparities may exist in ancillary areas, such as:

- treatment of aviation and land transport to airports
- car industry package compared to funding support for public transport vehicle construction (noting a shortage of urban rail rolling stock)
- tourism

- green collar jobs
- education and training
- industrial relations reforms.

Possible measures available to the Commonwealth through which these points, as well as the big issue of funding and governance, can be considered (notably the review of the National Transport Commission and further development of a national transport policy, recently outlined) are raised in Section 9 under Terms of Reference (d).

7.9 Conclusions

There is a strong economic case for public transport in highly urbanised societies, like Australia and Canada[22].

It is clear that most individual States lack the capacity to undertake the long term investments required to improve their public transport systems. Changes are needed to existing funding and delivery arrangements and would need to be aligned with Commonwealth policy on public transport systems for major cities and smaller urban settlements.

To improve public transport infrastructure and services, the ARA came to the view that:

> *'Nationally coordinated transport planning for Cities and Regions, complemented by long term funding for infrastructure, is vital to secure the future economic and environmental benefits of passenger transport in Australia'.*

Towards this task of transport planning and service, the rail industry has undertaken to:

> *'contribute to the enhancement of rail as a major provider of passenger transport through a rigorous and continuous improvement program informed by best overseas practice.'*

Under Terms of Reference (d) (Chapter 9), ARA outlines its proposals for nationally coordinated transport planning and long term funding for infrastructure for public transport passenger transport in Australia.

Before turning to national policy and options for funding public transport systems for Terms of Reference (d)– Measures to Facilitate Improvement to Public Transport, we address Terms of Reference (c) - assessing the benefits of public transport travel that contributes to the case for investment and governance by the Commonwealth.

[22] CUTA/ACTU (2003), 'Transit Means Business: The Economic Case for Public Transit in Canada' Issue Paper 5, May

8. Benefits of Public Transport, including Cycling and Walking

ToR (c) An assessment of the benefits of public passenger transport, including integration with bicycle and pedestrian initiatives

8.1 Overview

This Reference seeks views on benefits of public transport, including cycling and walking.

This approach is refreshing because conventional approaches to a sector or area for government focus on problems and then try to work for solutions.

The inclusion of facilities for cycling and walking as ancillary modes to public transport is welcome. Their inclusion greatly enhances the value of public transport for the good of the people, both users and non-users, living in the urban service area and environmental quality.

As Commonwealth transport policy, research and institutions are heavily dominated by freight transport and private car travel, a dominant focus is on motor traffic congestion - to which we respond.

The harms of urban traffic congestion, and over-reliance on motorised road transport, are considerable. The harms are not avoidable by individual choices or simple market operation; thereby warrant collective, strategic action by government with industry for considering transport as a system, over the long-term for the betterment of cities.

It is evident that Australian cities now suffer economically from road traffic congestion as a result of rising economic and social activity of urban areas and failings in the transport systems for those geographic areas (and people living and going there). This problem is very well documented and represented to policy-makers.

Implicitly, the benefits of public transport, including walking and cycling, are to be assessed in comparison to private car travel. Internationally, it is evident that public transport and cities need to develop in tandem; otherwise urban areas and people suffer in ways documented by American practitioners[23]. Many American cities are undergoing a 'catch-up' program for rail, as a mainstay of public transport.

8.2 Approach for Sustainable Urban Mobility: 'A Virtuous Circle'[24]

To start from first principles, it is useful to refresh an understanding of rail within an urban area:

Contribution of Rail Passenger Transport

For a large urban settlement, upwards of 700,000 people (provided the city is not too dispersed) rail is most suited to mass trip-making in urban areas for a number of reasons:

- dedicated track in protected corridor or on-road priority takes less urban space and less risk of collision – allowing more compact and safer cities;
- speed and reliability owing to above corridor;

[23] Vuchic (2007); Frumkin, Lawrence and Jackson (2004)

[24] ALGA, undated, Sustainable Transport. Discussion paper: Public Transport in Australia: focussing on the future-key issues and challenges. www.alga.asn.au/policy/transport/sustran/discussionPaper.

- lowest emission mode of motorised transport – minimal urban air and noise pollution and greenhouse gas emissions;
- most readily accommodates human-powered, wheeled vehicles, e.g. push chairs, wheelchairs, bicycles; and
- highly efficient for transporting at peak demands – journey-to-work (JTW), events – particularly between centres and where major trip generators are located with the station/interchange catchment.

Accessible Centres or 'Transit-Oriented Development (TOD)'

This principle is illustrated in the chapter on designing cities in the NSW Planning Guidelines for Walking and Cycling.

Examples are many; and other countries have implemented TOD practices more strongly, mentioned in Section 11 under Terms of Reference (f).

The principle is for accessible, co-located activities that people to reduce time and costs of travel; such development can avoid increasing road capacity to accommodate growth in demand for motorised travel. Although such planning principles have been known for a long time and are well articulated as policy principles, the challenge remains for implementation.

Efficient use of resources: Oil and Land

Well-designed cities are more compact. Cities well-served by public transport take less land for transport and reduce the area of surfaces to be sealed. Sealed surfaces interfere with the water cycle and contribute the rise of ambient night temperatures, from the urban Heat Island Effect, triggering the use of air conditioners.

These principles illustrate the interdependency of the physical relations between geographic urban areas, transport infrastructure and effects on the environment[25]. Consequently, ALGA has described the details for:

> *A 'virtuous circle' of strategies [as being needed] to address urban transport problems and the current significant imbalance in modal activity skewed heavily to private car usage[26].*

Urban rail facilities provide the following benefits:

- significant land use savings by using rail for moving the same number of people by road – a double track railway requires only one quarter of the land of a dual carriageway road and has about one third of the construction and maintenance costs;
- rail services can move 50,000 people per hour; a freeway lane only carries 2,500 people per hour;
- a peak hour train taking 600 people to work replaces 500 motor cars or 11 buses, significantly reducing congestion and pollution and the amount of land needed for roads and car parks; and
- the estimated 200,000 plus people that commute into Sydney each working day by rail would need 65 freeway lanes and 782 hectares of car parking if they travelled by car.

[25] Hayashi Y. & Roy J. (1996) (eds)

[26] ALGA, as quoted above.

Energy use per passenger by the land based public transport operators in 2005/06 are shown in the table below.

Table – Energy Use per Passenger-km 2005-06

Passenger Mode	Per Passenger MJ-FFC/Passenger-km
Buses	1.50
Heavy Urban Rail	1.61
Motor Cycle	2.07
Light Rail (Trams)	2.35
Motor Cars	2.94

8.3 Benefits to People in Places

Moving people, people moving

Public transport, particularly rail passenger transport, enables people to be active travellers – walking or cycling to the rail station/interchange; and with rail, people can take their bicycle to continue their journey.

In the late 1990s, a stronger understanding of the relationship between transport, planning and environment and health was brought to the fore through a collaboration of the European Union's Ministers for the portfolios of transport, environment (equivalent here to Planning and Environment), facilitated by the European Office of the World Health Organisation[27]. While this work did result in a charter, it has been backed by a substantial well-documented report, an action plan and subsequent multi-country research and policy projects. For example, in 2000 the follow-up Steering Group received a report on *"Review of implementation and effectiveness of existing policy instruments on transport, environment and health, and of their potential for health gain",* prepared with the generous support of France and United Nations Environment Program (UNEP) and the help of consultants. A number of projects were undertaken that are relevant to strategic planning and project appraisal for transport, for example *"Planned activities in the field of health costs for implementing the WHO Charter on Transport Environment Health".* Austria, took note of the interest expressed by France, Sweden and Germany to expand this type of work to other transport health impacts, such as noise, walking and cycling.

Public transport, particularly rail, exerts a positive influence on three of Australia's key health determinants, similar to Canada's health determinants[28] – physical environment, personal health practices, and income and social status[29]. As components of these determinants, the factors tied most closely to transport air quality, climate change, safety, physical activity and equity. Car-dependent urban areas are also less walkable or cyclable owing to the spatial

[27] WHO (1999) Charter on Transport, Environment and Health

[28] CUTA/ACTU (2002), 'Promoting better health through public transit use', Issue Paper 2, May.

[29] WHO (2008) Social Determinants of Health.

dispersion of activities.

A major stimulus was a major breakthrough in public health – an understanding of the significance of physical activity for health and protection from risk of many chronic diseases. The concept of 'active transport' was coined in the UK, where legislation and national policy aimed to reduce car use, to express the double benefit of physical activity for health and reduced car use[30]. Active travel describes the combination of walking, cycling and in combination with public transport as distinct from car travel. As a collective noun, it is less pejorative or marginal than non-motorised transport or alternative transport. It highlights how to obtain a double benefit – of getting from here to there (or merely around) and being physically active. Having more people walking and cycling on a street improves the level of personal safety[31].

The concept of 'active travel' is now in wide use in Australia. Its benefit for health arises from the need for healthy people to undertake the 'dose' of 30 minutes of physical activity (brisk walking, cycling etc) for health on most days of the week, in minimal amounts of 10 minutes. This prescription aligns well with walking to and from the public transport stop/station to travel to and from work or education or other activity. Such opportunities for more physical activity, more often as part of everyday life, seen as incidental to intentional exercise (formal sport or gym), are valued by health promotion and public health professionals.

Urban milieux in many urban areas have become so dominated by motor vehicles that physical conditions have become unsafe and deterred people from walking and cycling – this phenomenon is well documented[32].

In 2002, the former Commonwealth Government's inter-governmental forum on physical activity and health commissioned Getting Australians Active. *Towards better practice for the promotion of physical activity*[33].

Sedentary living and poor nutrition are major contributors to the high prevalence of overweight and obesity, risk factors for chronic diseases, in Australia, as reported by the Australian Institute of Health and Welfare (AIHW). Nine million adult Australians carry excess weight. All age groups are battling the bulge with severe risks for chronic disease. The Dieticians Association of Australia says that television, less active lifestyles and the increased use of our motor vehicles have contributed to increased rates of obesity and overweight.

In August 2008 Access Economics updated the total costs of obesity (BMI greater than 30) for the year 2008 to $58.2 billion, comprising:

- the financial cost of obesity in 2008 was estimated as $8.283 billion
- the net cost of lost wellbeing (the dollar value of the burden of disease, netting out financial costs borne by individuals) was valued at a further $49.9 billion

The Minister for Health and Ageing has commissioned a report through the National Hospitals and Health Services Reform Commission examining a national health preventative strategy for the risk factor of obesity and overweight. A draft strategy is expected later this year.

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[30] For a short review, see Mason (2000a). Reduction of private car use has become well defined as a national policy objective in several developed countries, and the Better Cities Program of the Australian government has been cited as an example where outcomes followed plans and funds (Telford 1997 in Hayashi & Roy)

[31] Jacobsen (2003)

[32] Mason (2000b)

[33] Bauman & others (2002).

Australian researchers have examined the relationship between weight and travel. The results of a study on driving were:

People who drove to work were less likely to achieve recommended levels of physical activity compared to non-car users Driving to work was associated with being overweight or obese car drivers are 13% more likely to be overweight and obese and that male cyclists specifically are less likely to be overweight or obese.

A later study [34]concluded:

These findings support recommendations to cycle to work or use public transport as a strategy to maintain healthy weight for men. Although healthy weight cannot be causally attributed to cycling and use of public transport in this study, the link is plausible, and increased cycling and use of public transport would have positive benefits for the environment and health in any case.

Air quality management , vkt and travel demand management

Rail passenger transport and in combination with walking and cycling has the greatest benefit for protecting urban 'air sheds' from motor-vehicle air pollution. Active travel for health is acknowledged as a co-benefit of environmentally responsible transport[35] which has a much longer history through air quality management.

Air quality management programs, including greenhouse gas reduction strategies of all levels of government, including Regional Organisation of Councils, have been at the forefront of seeking to stem the growth in vehicle-kilometres-travelled (vkt) by car – more so, than the transport sector. Growth in vkt overwhelms the effect of interventions to limit air pollution.

Total vehicle km travelled in 2000 was 113 billion with private motor cars having the greatest vehicle km. Total vehicle km are expected to increase to 166 billion by 2020 an overall increase of 46% or 1.9% annually. The projected increased total vehicle km travelled by 2020 is shown in the table below.

[34] Wen & Rissel (2008).

[35] The NSW Metropolitan Air Quality Study (MAQS), costing over $1m, was the basis for the NSW Air Quality Management Plan, that recommended a package of measures to protect Sydney's air quality.

Table – Projected Increase in Vehicles Travelled by 2020

Vehicle Type	Increase %	Vehicle Type	Increase %
Private Cars	**36**	**Light CV**	**107**
Motor Cycles	**16**	**Rigid Trucks**	**26**
Buses	**31**	**Articulated Trucks**	**120**

By 2020 private cars' relative share of metro-motor vehicle PM^{10} emissions increases from 49% to 58%.

Motor-vehicle air pollution is a major health problem causing chronic disease, impairment and premature death through cardio-vascular problems, bronchitis and other respiratory disease[36]. Results from air quality modelling led to recommendations not to develop some geographic areas owing to higher levels of pollution.

In 2000, such pollution was the cause of an estimated 2,700 cases of morbidity and an estimated 1,400 cases of premature death in Australia. The main causative factors were cardio-vascular problems, bronchitis and other respiratory diseases. The cost of death and disease that can be attributed to motor vehicle pollution in 2000 was of the order of $2.9 to $3.9 billion.

Access and Social Inclusion

Australian cities have, for many decades, been designed around private vehicles and cheap fuel.

In a modern society, the absence of urban transport planning and investment condemns areas and people to be dependent on private car travel. This has occurred in the outer rings of metropolitan areas and large regional towns over the last 40 years; we have an opportunity to invest to start healing the transport-related 'divide'.

A considerable literature is developing in Australia on social inclusion and the notion of 'transport disadvantage' [37] as well as the extent to which car-centric thinking is embedded.

In the large outlying areas of our cities, much of the population has no access to rail, tram or ferry networks and bus services are the only viable public transport option. This is supported by the following reports:

- Hurni (2005) – 54% of Sydney residents don't live anywhere near locations with a minimum service of 30 minutes between 8.30am and 3.30pm;
- Cheal (2003) – 83% of residents in Melbourne don't live within access distance to a service of 30 minutes headway between 5am and midnight; and
- Currie (2003) – 68% of Melbourne residents live where a bus is the only public transport and average headways are 40 minutes, most weekday services finish before 7pm and

[36] Fletcher T & McMichael A.J. (1997)

[37] Griffith University Urban Research Program (Australia), Griffith University Urban Research Program (Australia); University of Western Sydney.

only 20% of services run on Sunday.

The Institute of Transport Studies (Monash) research has highlighted a 'forced car ownership' in fringe Australia and key findings for Melbourne show over 20% of households with income <$500 per week are running two or more cars due to zero/very low public transport and this is growing. This lack of transport access significantly limits employment opportunities in these outlying areas and contributes to social exclusion.

In 2003 in Victoria the Municipal Association of Victoria, (MAV) on the topic of integrated transport[38] resolved:

1. *That the MAV make representation to the Minister for Transport to develop and adopt in partnership with local government a strategy for integrated public and private transport in regional areas to complement the improved rail services planned for the major rail corridors.*
2. *Further the Minister be requested to advise details of the State Government initiatives to achieve their 20% public transport target by 2020.*
3. *Further the Minister be requested to advise how the "Public Transport poor" interface councils are to be supplied with adequate public transport services and when this will occur.*

The ABS Socio-Economic Indexes for Areas (SEIFA Index), embeds car-centric thinking by continuing to use no car ownership as a weighting factor for socio-economic disadvantage rather than public transport accessibility. Proposals for change have been made and are suggested to this Committee of inquiry, particularly with the potential availability and greater uptake of car-sharing services now in Australia (distinct from car pooling).

Public transport services enable economic activity but also social inclusion, plus connectivity through the walking and cycling catchments. Thus public transport services can be regarded as essential as health services. Like health services, transport services have 'socio-technical' content and both are identified as sectors ripe for greater Commonwealth investment and accountability for sustainability. Their appraisal and spatial planning needs more than project management skills.

Considerable work is underway, at the local level through local government, Community Transport organisations with Commonwealth funding, to raise the availability of services for people with special needs through 'community transport'. The relationship between community transport and public transport was considered in a report commissioned by the Labor Council of NSW and broadly endorsed by NCOSS[39]. Subsequently, the range of bus-based public transport services are set out in the NSW Service Planning Guidelines for bus service contracts, that arose from the Unsworth Review of buses in the Sydney metropolitan area.

Such services cannot cope nor appropriate to the enormous unmet needs for transport sought by young people and people living in areas underserved by public transport networks.

Local Government and associated organisations are the natural advocates for better public transport and community transport. They bring an on-the-ground perspective, ideally from the point of view of local people (residents and visitors) as well as a thorough understanding

[38] www.mav.asn.au/CA256C320013CB4B/Lookup/ResolvedMotionsMay03/$file/MotionsResolvedMay03.pdf

[39] Campbell, S & White, S. (2003).

of the urban form, its density and its future planning for development.

The work of this Inquiry could be commended to the Australian Social Inclusion Board, established in May 2008.

Safety, health and environmental impact

Passenger rail is one of the safest modes of travel. Its operations contribute relatively little to pollution of the air shed or to noise and vibration[40].

Incidents resulting directly and immediately in death or injury are given greater attention than environmental effects causing cumulative harm and a greater burden of impairment, chronic illness and early death. Time limited the compilation of statistics showing relative safety of rail public transport.

Thorough studies of environmental pollution of the transport sector was completed by the standing UK Royal Commission on Environmental Pollution, and an analysis by the British Medical Association examined the impact of road transport on public health and safety.

Climate Change and greenhouse gas emissions

Currently the transport comprises about 14% (550.0 Mt carbon dioxide-equivalent) of total Australian carbon emissions and is the second fastest growing source. Cars contributed 8% of national emissions. The fuel used by cars increased by 19% from 1990 to 2003 and their related emissions increased by 25% in the same period.

Between 1990-1999, total emissions from fuel consumption in transport[41] increased as follows:

Road	+18.3%
Air	+56.6 %
Rail	+ 2.4 %

If transport continues as at present, it will comprise over 66% of the total Australian carbon emissions by 2050, which is clearly unsustainable. The proposed Carbon Pollution Reduction Scheme (CPRS) is a market scheme intended to reduce carbon emissions. The CPRS proposal incorrectly implies that Australia can achieve its climate change goals to 2030 without major change in the transport sector. A sharp reduction in transport emissions will be required if Australia is to pursue even a modest emissions target. Reducing transport emissions will in turn require a substantial modal shift from road to rail, as well as lower emissions intensity in motorised transport modes.

However, the CPRS will disadvantage rail use in Australia, despite rail's environmental advantages and higher carbon efficiency. The Government proposes to offset the carbon cost imposed by the CPRS for passenger vehicles, so there will be no change in the cost to car users. As a result there will be no incentive for car users to reduce their car use. At the same time passenger railways will incur the carbon emission permit cost. If passenger railways rightly pass on the cost of the emissions charge as a market based scheme requires, it will

[40] CSIRO - Reshaping Cities Air Pollution.

[41] AGO (2002).

increase the relative cost of rail travel, thereby encouraging users to transfer from rail to car travel.

The CRC for Rail Innovation describes that an emission trading scheme is valuable, but not sufficient to meet Australia's emissions objectives. Both the transport system and the CPRS are riddled with market failures, so neither can be economically efficient. Consequently additional complementary policies are essential to meet climate change and transport objectives. Furthermore, a variety of improvements to the rail system have substantial environmental, social and economic benefits, representing excellent value for the investment.

Including walking and cycling

The benefits of walking and cycling in combination with public transport for the environment, health and affordability are widely documented, and further material can be provided.

Walking and cycling infrastructure includes strategic planning and construction of the physical routes, networks, retrofitting major intersections, wayfinding and end-of-trip facilities. It is also well documented that the biggest deterrent to increasing the levels of cycling in the community is the lack of safe cycling routes.

ABS Census data on journey-to-work, collected during the winter when it is cold, dark are likely to be a conservative estimate of the levels of cycling for other trips, that are a growing share, and levels at other times, such as the weekend and the warmer, lighter months.

The levels of cycling within a metropolitan area vary by several orders of magnitude but it has been commonplace for road authorities to aggregate the data that masks the variability and considerable growth, particularly in the inner and middle rings. More than 90,000 people used pedal-power as their sole form of transport to work in 2006 compared with 78,000 in 2001.

Studies of centres within metropolitan sub-regions have identified the level of short car trips as a baseline for converting those trips to walking and cycling trips[42]. Experience has shown that conversion needs much more than 'message marketing': upgrading the physical conditions and implementing social change programs (e.g. cycling proficiency programs and workplace travel plans).

By improving the cycling network and its connectivity to rail stations/interchanges, growth in cycling is expected to continue. For Australia's capital cities, the Council of Capital City Lord Mayors has submitted a proposal for funding major cycling infrastructure to Infrastructure Australia.

It is also possible to determine the multi-modal combination of cycling and public transport travel. Many rail stations/interchanges have no secure bicycle locker facilities – an opportunity for upgrading infrastructure for current and future users. In addition, facilities for people wishing to take their bicycle on the train are needed within station premises and on-board. This is relevant for domestic tourism[43].

In Australia, transport project- thinking has rarely incorporated planning or a budget to provide for the ancillary, essential infrastructure for walking and cycling within the station/interchange catchment. Examples can readily be given of poor connectivity between stations and bus stops and major trip generators. This is regrettable. However, relatively small

[42] NSW Premiers Council for Active Living commissioned study from Parsons Brinckerhoff.

[43] Australian Rural Education Centre (2009).

infrastructure investments ('shovel-ready') can improve connectivity of bicycle networks without being associated with major transport projects.

8.4 Incorporating benefits into institutional arrangements for funding and methods of appraisal

Having canvassed the main heads of consideration for benefits of public transport – in terms of transport functions (and policy purpose) and co-benefits to the environment, health and social inclusion – questions remain about how these benefits are incorporated into government decision-making about transport (Hayashi &Roy 1997; WHO 1999).

The ARA is keen that the institutional arrangements for funding and processes of planning and project appraisal become accountable for sustainability, in its full sense of ecological, economic and social.

Typically, economic methods of cost-benefit have limited scope to include the 'externalities' or indirect costs of a project. In addition, environmental degradation, increased risks to health and opportunities foregone for active travel are difficult to quantify and convert into dollars, or monetize. Similarly, without the addition of 'behavioural economics', it is probably that people travelling on concession tickets will continue to be accorded zero value compared to people paying full fare and accorded a higher value as a trip of economic value.

Some conventions used for valuing time of people who drive compared to people who use public transport are known to place a higher value on the time of road motor vehicles. The low value of time of people walking was graphically highlighted in Sydney by studies of dwell times at lighted intersections, which were completed for the City of Sydney Council by internationally renowned specialist, Jan Gehl. The black box of appraisal needs review for urban sustainable transport practice.

8.5 Responding to Urban Traffic Congestion

This topic has been addressed in depth in the ARA's NPTAgenda. The problem of urban traffic congestion has been framed, particularly by road authorities and transport researchers in Australia whose expertise lies mainly in roads, freight and private vehicle transport, and their solutions are circumscribed.

In a recent policy discussion of inner city traffic congestion, for example, Sydney's Lord Mayor referred to an analysis of motor traffic on Sydney's Anzac Bridge that found by diverting 10 per cent of car occupants to bicycles - or about 730 cyclists an hour - the life of the current bridge would be extended by about eight years, a saving of $46 million based on present-day construction costs[44].

Nonetheless, the direct and indirect costs are enormous, and the loss of well-being from the unreliability and delay in travel time is keenly felt by the public. From an experiential perspective, however, slower motor traffic speeds are quieter and safer for other road users such as pedestrians and cyclists.

The ARA highlights the following:

- Solutions to urban (motor traffic) traffic congestion discussed in terms of supply-

[44] Sydney CBD Mobility Forum, convened by NSW Department Premier & Cabinet, November 2008; www.infrastructureaustralia.gov.au/public_submissions/published/files/471_cityofsydney_SUB.pdf)

demand side interventions relating to the road system, but inadequate attention to the potential for rail to alleviate congestion. Buses undertaking routes with high numbers;

- The 'predict and provide' approach still dominates in thinking about traffic congestion (and car parking) rather than the recognition that we 'cannot build our way out' and the need to 'plan and prevent', an approach attributed to the British transport planning academic, Professor Philip Goodwin, Dr Susie Owens, and more recently Jeroen Buis sustainable urban mobility paradigm at the World Congress – in any case, road & car parking area already occupies a significant proportion of urban land (40%); and
- To make better use of road asset – lane management, Right-Of-Way for tram and bus – is still available – affects average vehicle-speed, on-time performance, reduces the productivity of the tram and bus fleet and raises running costs because drivers can complete fewer trips per shift. Governance a major problem here.

8.6 Conclusions

Key points of ARA's submission here are that:

- extensive benefits accrue by the use and greater use of public transport, particularly rail, by people in urban areas;
- the use of public transport, particularly rail, is highly beneficial in combination with walking and/or cycling (and car-sharing (distinct from car pooling)) in avoiding the expense and excessive use of car travel;
- despite the extensive benefits, the benefits are yet to be adequately incorporated into urban-transport planning and models of funding, appraising and delivering projects; and
- the legacy of road- thinking for people movement has limited our capacity to make our cities work better and therefore, initiative is needed by the Commonwealth for the vision to develop differing institutional arrangements, and to build the capacity for sustainable urban mobility in Australia.

9. Measures to facilitate improvement of public transport

ToR (d) Measures by which the Commonwealth government could facilitate improvement in public transport services and infrastructure

The ARA considers the Commonwealth has the exclusive capacity to lead in strategic long-term planning, funding and appraisal for sustainable urban transport, including the upgrading of rail infrastructure and services and their connectivity with bus routes. Therefore, ARA's submission as what measures the Commonwealth could take focus on governance and funding. We note that the *Sustainable Cities* report led its recommendations for a governance framework as an enabler to the achievement of more sustainable cities, a direction with public support.

9.1 ARA's Platform: improving the Role of Rail in Urban Mobility

The fundamentals for high quality public passenger rail services in Australia are good infrastructure and effective management of that infrastructure. ARA as the urban passenger industry's national voice is committed to both strengthening industry operating performance by cooperative best practice initiatives, and securing an operating environment which optimises the opportunity for publicly funded urban rail to prosper.

To this end, Industry has recently completed a groundbreaking national benchmarking program to assess operating performance in all urban passenger operators in all five states. Operators are now collaborating to exchange good practices to strengthen the many individual initiatives that rail operators have already been undertaking. This program is an excellent initiative and represents a groundbreaking step forward for Australian urban passenger rail. It parallels similar best practice programs between the major international urban passenger operators such as London Underground and the New York Subway.

In addition to the benchmarking initiative, the Australian urban passenger transport operators have all engaged in a major program of research, in collaboration with the Commonwealth, through the Cooperative Research Centre program. Operators are working together to fund national research programs to underpin future initiatives. Current programs include optimising network capacity, vandalism prevention, level crossing safety, crowding and future very fast trains.

These excellent national research initiatives combined with the benchmarking program will provide all Australian urban passenger operators with a very sound basis for continuous operational improvement, within the "environmental" constraints which are principally inadequate infrastructure and work practices.

These constraints, particularly poor infrastructure, have left the Industry very largely hamstrung in terms of providing the high quality urban rail services that will underpin the growth in urban passenger rail that Australia needs. This submission addresses the question *"how does the rail urban passenger industry optimise its infrastructure operating environment"?*

Successful urban passenger operations in every Australian city require as absolutely essential not only high quality modern trains but also the kind of fixed infrastructure (stations, access, track and traffic control systems) that is both reliable and facilitates high level usage by a public which wants and needs good value and excellent service.

Sadly this is far from the case around the nation due mostly to inadequate funding and

resourcing by State governments which own and manage the relevant infrastructure. This is not to ignore the very significant recent funding initiatives in different capitals. Rather it is to face the reality that rail has been a poor cousin to roads for a very long time, and current major injections of funds are very much "catch up" for many, many years of neglect, or at best "patchy" cycles of funding which come and go.

What has clearly been lacking has been a national and state "vision" and strategy for where rail passenger services fit in the context of creating better cities. Further, the lack of vision has therefore led to ad hoc and inadequate bursts of funding over decades with the result that we see many examples in our cities of stations which are outdated, uninviting and inefficient in facilitating efficient people movement, old tracks that buckle in the heat, outdated train traffic control systems and rolling stock which is old and uninviting. These combined create an enduring public mindset of rail still being "tired" and incapable of providing clean, efficient travel.

None of this should take away from many good initiatives over the years, and in more recent times, as well as the valiant efforts by rail operators achieving outstanding results in the circumstances. However, it is stunningly obvious that nationally we have not been good at making rail a truly viable and efficient major people mover. Whilst part of this is due to the enduring love affair with the motor vehicle, a very large part is to do with very inadequate visioning, planning and related funding to achieve long term goals. Clearly, the "system" by which funds are allocated is not performing sufficiently well. There is benefit in establishing national coordination and direction to be given for the process. Accordingly, to improve public transport infrastructure and services, the ARA has come to the view that

> *'Nationally coordinated transport planning for Cities and Regions, complemented by long term funding for infrastructure, is vital to secure the future economic and environmental benefits of passenger transport in Australia'.*

(ARA's argument for national transport planning and funding is set out in its urban mobility policy reproduced on the following pages.)

Put simply "nationally coordinated transport planning for Cities and Regions, complemented by long term funding for infrastructure is vital to secure the future economic and environmental benefits of passenger transport in Australia".

The ARA strongly encourages the Inquiry to recommend a **National Strategic Transport Plan and National Transport Infrastructure Bank** for national and holistic coordination for policy, governance, funding and delivery assurance/responsibility for performance outcomes in both public passenger and freight needs. It is no longer acceptable to plan one mode of transport independent of other modal needs. Integrated transport planning and long term funding is vital to secure our future as a nation.

The National Transport Infrastructure Bank would have vested powers to disburse the funding in accordance with the Strategic Transport Plan. The Plan and Bank would funded jointly by the Commonwealth and States, and would disburse funds according to the National Plan, on behalf of COAG. Funds would be targeted towards optimising the public transport mix in cities and major arterial roads.

The ARA seeks support from the Senate Committee for a National Strategic Transport Plan, as described, to be a recommended Commonwealth measure whose intent is incorporated into legislation.

Moving People Around Australia December/08

AUSTRALASIAN RAILWAY ASSOCIATION INC

MOVING PEOPLE AROUND AUSTRALIA
THE ROLE OF RAIL IN URBAN MOBILITY

Nationally coordinated transport planning for Cities and Regions, complemented by long term funding for infrastructure is vital to secure the future economic and environmental benefits of passenger transport in Australia.

The Rail Industry will contribute to the enhancement of rail as a major provider of passenger transport through a rigorous and continuous improvement program informed by best overseas practice.

What are the problems with urban transport in Australia?

- Fuel unreliability is now a major concern for motor vehicle users and is unlikely to improve as fuel reserves reach "peak oil" levels
- Environmental impact – transport contributes significantly to noise, greenhouse gases, particulates, NOx, SOx in the atmosphere – rail is a very low emitter of all these emissions
- Whilst the good news is that urban rail patronage is increasing rapidly (total national heavy and light rail passenger task grew by 33.7 million passenger journeys (or 5.2%) to 677 million journeys in 2006/7), the bad news is that the rail system in many cities is at full stretch and is under-equipped to take up the ever increasing demand in the short to medium term

What are the impacts of the problems?

- Safety – vehicle crashes account for over 1600 deaths and over 31,000 seriously injured persons per annum. Rail is a much safer form of public transport which can help reduce road traffic mortality
- Traffic congestion – BTRE estimates that congestion in cities may cost the Australian economy about $20 - 30 Bn annually by 2020
- Transport emissions- related fatalities are estimated at over 1500 deaths per annum
- High transport costs due to congestion – estimated at $10B pa
- Increased travel time
- Lack of transport reliability

How did these problems come about?

- Lack of integrated national planning for all modes, including infrastructure and town planning (Liveable Cities) has contributed very significantly to these outcomes
- Infrastructure under-investment has led to major limitations on the capacity for rail to increase its share of the urban passenger task

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Moving People Around Australia December/08

AUSTRALASIAN RAILWAY ASSOCIATION INC

Leading rail into the future...

What are the solutions?

- Development and implementation of a National Strategic Transport Plan which is consistent with State and Territory plans and which lays out high level objectives and strategies for people movement, integrating all modes (private and public road and rail, cycling and pedestrian), incorporating the following features:
  - ~ Urban and regional focus
  - ~ States, Territories and Commonwealth involvement
  - ~ Integration with government planning and investment cycles
  - ~ Passenger needs as well as freight
  - ~ Town planning integrated into the Plan
  - ~ Targeted funding that is national as well as jurisdictional
  - ~ Short, medium and long term perspectives
  - ~ Periodic review to constantly update the Plan
  - ~ High level performance objectives, strategies eg increase public rail passenger kms by x%, reduce motor car passenger kms by y% , increase passenger safety by z%, reduce noise by a% etc
- The National Strategic Transport Plan will be approved by COAG in 2009 comprising short, medium and long term goals for road and rail passenger and freight service, and is kept updated on a rolling update program
- The Plan will be allocated funding in 2010 – 11 for the first 5 years of the Plan and then in tranches to accommodate strategic action
- the high level Transport Industry Council will be established to oversight the implementation and relevance of the Plan, reporting to COAG via ATC
- The Council will have high level representation from key Industry Groups including the ARA, ATA, AAA, UITP and AAPMA, NTC, Infrastructure Australia and a representative from each of the Jurisdictions
- Delivery of actions will be undertaken by Jurisdictions

What are the benefits of such an approach?

- Long term nationally coordinated funding and underpinning planning will optimise the national capacity to effectively address strategic national and jurisdiction issues
- Improved public health through greater safety and reduced environmental impact
- Improved urban passenger services with greater reliability and frequency
- More efficient infrastructure spending and outcomes
- Increased capacity and productivity of transport systems for passengers and freight customers
- Better integrated town planning leading to more liveable cities and towns

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9.2 The Commonwealth Role in Land Transport: Breaking from the past

Nationally, the Council on Australian Governments (COAG) has taken a leading role for reforms in land transport, principally on road transport, through the actions of the National Transport Commission (NTC), established under the *National Transport Commission Act 2003*. The NTC has the responsibility to develop, monitor and maintain nationally consistent regulatory and operational reforms relating to road, rail and intermodal transport.

In February 2008, the NTC provided strategic policy advice to the new Commonwealth Minister for Infrastructure, Transport, Regional Development and Local Government in its two volume document, *National Transport Policy Framework*. *A New Beginning*. It included passenger transport and anticipated future policy to accord value to relative environmental performance and social inclusion.

The NTC saw this framework as serving:

as an explicit statement by all transport ministers that they are committed to advancing a national agenda, supported by revised inter-governmental arrangements and a public work program. (p.9)

This statement, NTC explained, is consistent with the outcomes of the December 2007 COAG meeting, immediately after the new Commonwealth Rudd government, "to signal a fundamental break with the past." The 2006 ALP Platform on Nation Building for cities and transport had foreshadowed a necessary break and shift towards urban liveability and holistic sustainability, not merely driven by financial priorities.

To recap on that past, in 2004 during discussions about the introduction of AusLink, the government declared it would retain those established funding arrangements for public transport, although it had already changed the governance of private land transport. The then Department of Transport and Regional Services[45] stated:

> *'The Commonwealth view is that State and Territory governments are best placed to deal with the metropolitan and local complexities of public transport'.*

Anticipating such policy change has ramifications for developing a holistic perspective on urban transport systems, including rail an urban integration, and requisite, differing skills than for a system giving preference to the movement of private motor vehicles, bolstered by an over-arching favourable economic framework[46]. However, their past and the Commonwealth Department is rooted in road-building and driving and it is doubtful whether this 'root stock' is suited for evolving or grafting the administration of public transport funding and infrastructure revitalisation. Thus another challenge is to find the appropriate administrative mechanism – one that could be explored through the review of the NTC discussed below.

[45] 2004, *Auslink White Paper*, Canberra, June, page 9

[46] Identified as the primary 'driver' for high levels of car use, the 1991 National Greenhouse Strategy.

In January 2009, the ATC issued terms of reference[47] for its review of the NTC (s51 NTC Act). It called for submissions in response to a discussion paper and questions, some very big strategic questions pertinent to public transport and the terms of this current Senate inquiry; for example:

What are the big issues (eg. climate change, world oil supply, urban transport, national markets, and safety) that will face the Australian transport industry in the next five years, and further into the future? What are the big changes that will be required? (That is, what should the reform agenda comprise?)

How well is the reform agenda going? Are governments, including the NTC, and industry making enough progress on the big issues?

What changes to the current institutional and/or regulatory frameworks, as well as reform priorities, are needed to drive the reform agenda forward faster and more effectively? What role, if any, should the NTC play?

How does and should the NTC's role fit with the various other government branches and agencies and industry stakeholders? How effective are the interactions now? Will the new reform agenda require changes to this role and interactions?

Has the NTC been effective in improving, and/or achieving an appropriate balance, in the specific areas that it is responsible for: productivity, regulatory efficiency, safety and environmental performance of transport?

Written submissions in response to these questions are due on 6 March 2009, during the Senate Committee's hearings.

9.3 Commonwealth funding and governance of public transport: enabling the step-change

The ARA contends that its platform for national governance and funding has credible, authoritative support for passenger transport too. This platform is appropriate to the scale of investment peculiar to fixed-track technology of rail passenger transport to serve as a connected network for a wide urban area over the next 40 years.

During Infrastructure Australia's 2008 audit of national infrastructure, it declared

> *'new public transport projects of the kind required **to deliver a step-change in capacity and service** tend to be large and expensive, particularly for rail'.*

The Infrastructure Australia Building Australia (December 2008) report to COAG also indicated it was:

'clear that government at all levels including the Australian government, needs to provide greater investment in new public transport infrastructure, in order to expand current transport systems and ensure that existing infrastructure and public transport is utilised effectively and efficiently to mitigate effects on climate change'.

[47] www.infrastructure.gov.au/transport/australia/ntc/submission.aspx

IA continued:

> *'the strategic policy choice facing Australian governments is whether, and under what circumstances, new urban rail systems should adopt new technologies. However, a move towards these technologies raises many issues. To avoid a repetition of the rail gauge problem from the 19th century, decisions on these matters need to be made with national input and intergovernmental collaboration. The network that exists today represents more than 40 years of consistent long term planning and investment. An equivalent national commitment to such planning and investment is required in Australia if new technologies are to be applied to the public sector.'*

In short, ARA says the current system of planning and funding for public transport in Australia is not performing sufficiently well. Fragmentation is well known. Sufficient experience and time has elapsed to be concerned that the failings are now endemic in our major cities, and well known to people on the ground.

ARA's concern with fragmentation in the method of State (and local) governments and institutional complexity makes it difficult to develop and stick to strategic long-term infrastructure planning, funding and delivery of projects and services. Strategic vision and coordination is overwhelmed by shorter-term pressures about many issues, e.g. land release, housing affordability, and regional, cross-boundary issues such as parking policy. In addition to the fragmentation and complexities, described in the NPTAgenda, the ARA also refers to the failings (and loss of public confidence) in the metropolitan strategic plans to deal with the new and existing rail systems, the disparate needs of the public transport sector and road use for private vehicles, and integration with urban design, renewal and growth.

Changes are needed to current funding arrangements for public transport, particularly to enable strategic planning for the appropriate mix of modes in urban areas rather than rely on bus transport.

In May 2008, the ATC Communiqué declared that:

Current national governance arrangements in surface transport are fragmented or non-existent.

Funding without a national governance arrangement would risk large investments failing to improve the public transport system within a city metropolis. Funding and other measures, therefore, need to be predicated upon a national governance and funding model, such as proposed by the ARA.

9.4 A National Transport Policy outlined by ATC

The ATC had been advised by the former Australian Passenger Transport Group (APTG). As a representative on that Group, ALGA[48] summarised its discussion paper that benefitted from input on passenger transport by Miller and particularly on "Developing a National Focus on Urban Public Transport to Reduce Car Dependency and Improve the Sustainabiliity of Australian Cities" by Professor Jeff Kenworthy. On public transport infrastructure, it noted:

[48] Undated, www.alga.asn.au/policy/transport/sustran/discussionPaper.php

- *Australian cities have a very low proportion of dedicated public transport right-of-ways compared to urban freeways, especially for buses: and*
- *The financial arrangements for public transport rely on loan borrowings, with inevitable state debt considerations, compared to the mainly recurrent and grant funding for roads.*

In May 2008, the ATC responded to calls by the community and the 2020 Summit and announced a national transport policy[49], at least in outline.

ARA supports this new initiative for national and integrated governance for Australia's transport future as a step in the right direction and in the context of ARA's submission makes the following observations.

9.5 Commonwealth Policy Development, Aligned with COAG and the ATC and Public Engagement

The Australian Transport Council has stated that it sees value in having a national, co-ordinated approach. The NTC review represents an opportunity to develop the outline of a national transport policy and to seek more widespread public consultation, and extend the time for submissions.

The Commonwealth through its various powers and the growing role (and public understanding) of the Council of Australian Governments **('COAG'),** has the opportunity to play a leadership, collaborative role – indeed, the only way to achieve its policy goals, for reasons given above. This view is as true for the desired integration of landuse and public transport[50], a failure despite a previous federal charter (ATC 2003) and current State and local government policy and legislation. The Commonwealth can play such a visionary role in the practical work of funding, and the co-ordination of public investment for public transport.

The Commonwealth has already established Infrastructure Australia (IA) and the Infrastructure Coordinator as Commonwealth statutory authorities. Their role is to take a nationally consistent approach in its advisory and other functions to infrastructure broadly, including public passenger transport. From the IA Act 2008 s 5, one can see that these functions are wide-ranging, for example:

- needs assessment and priority-setting
- policy, pricing and regulatory issues affecting use of infrastructure
- option identification and reforms to use of national infrastructure networks
- needs of users
- mechanisms for financing investment in infrastructure
- undertake audits in context of growth forecasting and commission research
- evaluate or appraise proposals (potentially broader than projects) for investment or enhancements to nationally significant infrastrucuture
- provide advice on infrastructure policy issues arising from climate change.

[49] www.atcouncil.gov.au/communique/index.aspx

[50] ATC November 2008 Joint Communique on the undertaking by the Local Government and Planning Ministers Council.

The ARA's NPTAgenda (2006) anticipated the possibility of this intercession rather than tinkering with the Auslink program for urban public transport.

With its focus on urban public transport – integrated with landuse, walking, cycling and car-sharing – rather than broad infrastructure, the ARA recommends that the Senate Committee consider establishment of a new national mechanism for public transport planning and funding (NPTAgenda s 1.4.1 p.29, s3.1 pp. 63-66).

With the demise of the Standing Committee on Transport (SCOT)'s Australian Passenger Transport Group (APTG), whose role filled temporarily a gap in the under-resourced national forum for co-ordinating activities, the review of the NTC and the formation of the Major Cities Unit of Infrastructure Australia create a great opportunity to overhaul the complexity of transport governance.

The ARA also recommends that the Senate Committee make use of this window of opportunity to address options for governance that for the first time brings urban public transport into the Commonwealth arena.

Drawing upon experience in other jurisdictions we can anticipate that a governing element, for governance of urban public transport - so different in its particular interface with centres, trip generators and the public from other sub-categories of the transport and logistics sector - be spatially decentralised to geographic regions and incorporate bottom-up approval by recipient communities. Examples already operating in the US, and possibly to be changed through the re-authorization process under the new Obama administration, is the Federal funding of County Regional Transportation Commissions and local Transportation Authorities. The more local transit authorities, co-ordinating operators and implementation of TOD, receive State funding. The basis of funding is by the electorate across several geographically-contiguous local governments for say 0.5% of State sales tax revenue for 30 years to produce and implement strategic long-term plans for investment and improvement of public transport.

The Canadian proposal for their National Transit Strategy described in **[s11. 2]** provides for accountability measures and involvement of recipient communities.

Further points for consideration

In developing robust Commonwealth policy relating to public transport investment, infrastructure and services, the following points need consideration (not in order of importance):

a. take into account 'catch-up' needed for public transport, particularly rail-based technologies (heavy rail, light rail (tram) and metro);

b. the need for ecologically sustainable development requires the effective integration of economic and considerations in decision-making processes; the environment should not be limited to reducing greenhouse gas emissions but protecting urban environmental quality for health and liveability, and social impacts;

c. on climate change, the policy needs to align with ATC's supports for 'efforts to ensure the transport sector makes a positive contribution to addressing the climate change impacts' and thereby amend the adverse impact of the proposed CPRS on rail, as described in Section 8 under Terms of Reference (c); re-align the formulation of the Carbon Pollution Reduction Scheme for consistency with environmental policy objective of reducing oil dependency in urban transport;

d. consideration of oil security and consumption, as examined in the Oil Report; and

sustainability, as raised in the *Sustainable Cities* Report ;

e. provision for bottom-up mechanism to support the proposed top down models[51], essential to ensure that pedestrian and cycling connectivity is assured and budgeted rather than deferred, as well as people-oriented communications, whose absence detract from achieving 'seamless travel' or good practice;

f. review of expanding training opportunities for people to work in sustainable urban people transport (green collar jobs), to enable the development of a multi-disciplinary workforce that includes traffic engineering at the local level. A need is evident, and examined by the former Australian Greenhouse Office, for certification of sustainable urban mobility training and clarity about what is sustainable and what is not, like the WA Neighbourhood Code;

g. the potential for a Commonwealth investment bank for strategic long-term investments for enabling the redevelopment and growth of cities to be more environmentally sustainable, noting the recent formation of the Australian Business Investment Partnership[52] to finance commercial property projects and the broader proposals for infrastructure for economic recovery in the USA;

h. consider amending relevant infrastructure investment legislation and transport legislation to incorporate requirements to take environmental and health impacts into account in planning and project appraisal; and

i. consider the long-term futures of domestic aviation and tourism and potential scenarios for the contribution of passenger rail.

10. Commonwealth Mechanisms (legislation, taxation, policy etc) Discouraging/Encouraging Public Transport

ToR (e) The role of Commonwealth government legislation, taxation, subsidies and policy mechanisms that either discourage or encourage public passenger transport

10.1 Overview

The ARA addresses measures that act as barriers and supports to the use of public transport, including walking, cycling and car-sharing. We first address legislative reforms in transport, the CPRS and taxation.

10.2 Commonwealth Legislation

Transport policy and infrastructure

With the announcement for a national transport policy, by the ATC, to encompass public transport, review of existing legislation is likely to be necessary. This likelihood is welcome considering the breadth and depth of the questions raised for answer in the review of the NTC, discussed above.

[51] Marston & Webb (2003) and forthcoming.

[52] E.g Johnston (2009), 'Fahour farewells NAB for 'Rudd Bank'', *Sydney Morning Herald, Weekend Business,* 21-22 February.; Everett & Rohatyn (2008).

It would be a good opportunity to bring forward recommendations made in previous parliamentary inquiries, reviewed earlier, that could:

- enable the declared 'policy objectives' of minimising impact on the environment and energy consumption: and
- inform and amend the 'policy principles' in such a way as to include sustainability criteria.

For example, in submission to the previous Senate inquiry on oil, the International Association for Public Transport, Australia and New Zealand (UITP) proposed that:

> *'The inclusion of sustainability criteria in funding will enable a more balanced approach to allocation of federal funding for investment in transport infrastructure, potentially in favour of heavy/ light rail and supportive bus systems.'*

Measures for Commonwealth policy development, suggested above under Section 9 Terms of Reference (d), could be considered in formulating the objectives for new or restructured agencies and for amending the legislative apparatus for governing the funding of transport infrastructure.

Climate change legislation: the CPRS

While the formulation of the CPRS is unclear, the rail industry has significant concerns that it may lead to the promotion of motor vehicle use compared to rail. It appears that there will be no cost for motor car users whereas passenger rail operators may incur carbon emission permit costs. For more detailed discussion refer to 8.3.

Therefore, the ARA recommends that the Senate Inquiry note the significant concerns of the rail industry relating to potential impacts of the CPRS.

10.3 Subsidies and Incentives

Previous parliamentary inquiries, starting with Senate report *The Heat is On* and Australian scholars[53] have identified measures relating to car ownership, car travel and car parking – inducements that can operate as a financial incentive and/or a symbol of prestige.

In recent years, supermarket legacy programs issue discount vouchers on fuel and these are not transferable to meet other travel costs. Further, many government-subsidised facilities and entertainment that function as trip-generators offer and advertise free or subsidised parking and usually omit information about public transport access. A supportive agency could help raise the transport content while government funding could be conditional on demonstrating more sustainable access/benefit practices.

The Fringe Benefit Tax (FBT) Concession: perverse element or totality?

The ARA notes that this concession has been raised repeatedly owing to the glaring loss of tax revenue estimated at over $1 billion per annum. For example, the Senate Committee Oil Report Recommendation 10 stated:

[53] E.g. Riedy & Diesendorf (2003)

The Committee recommends that the government review the statutory formula in relation to fringe benefits taxation of employer-provided cars to address perverse incentives for more car use.

For company-owned cars, the statutory formula used to calculate the concession is regressive, resulting in a lower taxation level the longer distance travelled; for example, for a vehicle that has only travelled less than 15,000 km in the tax year and attracting a rate of 26%, by travelling a little further the tax payable drops to 20%, and so on. As recorded in the Senate 2003 report, it is a known practice in State and local government, for example, for car owners to be encouraged to take their car for a trip to rack up more kilometres if they are close to attracting a lower rate. In that report and *Sustainable Cities* report[54], submissions had proposed that the FBT concession be progressively clawed-back : signalling an intent to remove the FBT concession but first – and quickly as possible - making the statutory formula flat (no more rewards for increasing vkt) .

Table – Statutory Formula – FBT Rates

Total km travelled during year	**FBT %**
Less than 15,000 km	26
15,000 – 24,999 km	20
25,000 – 40,000 km	11
Over 40,000 km	7

More recently and more specifically, the NTC[55] recommended:

> *Short term:*
>
> *Review existing taxes and subsidies that can adversely affect congestion.*
>
> *The current FBT concessions for car use that provide incentives to increase annual km driven should be completely phased out within 3 years.*

Superficially, the NTC's recommendation looks attractive but unless supplemented would still result in the loss of millions of Commonwealth revenue.

Since all these recommendations were made, the Commonwealth government has referred the issue of the FBT concession for cars to the review of Australia's tax system (chaired by the Secretary of the Treasury, Ken Henry), announced in May 2008 and due to report in 2010. The scope of this review was described by the Prime Minister as a 'root and branch' review encompassing Australian Government and State taxes, except the GST, and interactions with the transfer system, and investigation into measures to strengthen the financial security of seniors, carers and people with disability.

[54] para 5.75 and 5.76.

[55] (2008), *National Transport Policy Framework: A new beginning*, Vol 2, p.4

We suggest a significant policy issue is to distinguish between:

- the statutory formula with its regressive, step-wise rates that 'reward' drivers with a lower rates as their vkt increases
- the removal of a FBT concession in total.

We also suggest that the entitlement, not only the regressive tax rate, is an incentive and is perverse in being counter to what is desired for more sustainable urban transport, less consumption of fossil fuels and reduced greenhouse gas emissions from the transport sector.

Previously in its submission to the Senate oil inquiry, the ARA had suggested that the concession be extended to public transport, a suggestion for such extension to bicycles as well, that has been made by many other stakeholders.

We note a more recent case has been made[56] for a more thorough review and total removal of tax incentives to drive. In the context of the anticipated thoroughness of the Henry Review, this appears a better approach.

Arguments for a thorough review and progressive removal include:

- the tax concession reaped from a car and fuel would be many orders of magnitude greater than for a annual public transport ticket or an expensive commuter bicycle, accessories and annual maintenance costs;
- the public transport network is spatially inequitable and thus a tax concession for public transport tickets would reinforce this spatial inequity;
- the operation of workplace tax concessions for car use shapes the organisational culture towards car driving, or at least reinforces the prestige associated with driving a car to work; this cultural dynamic at the workplace undermines 'workplace travel plans' as sustainability initiatives[57] ; and
- the deficit of Commonwealth tax revenue of $1 billion per annum, and the potential to direct this sum toward a public transport infrastructure fund.

Whilst the ARA philosophically opposes the notion of FBT concession for car, if Government decides to retain this concession, then ARA seeks that Government provide employees with concessions or other sustainable travel incentives for using public transport.

The ARA recommends to this Committee, and to the Henry Review:

- to review all taxes and subsidies that support car use, in urban and rural areas;
- signal a decision to progressively save tax revenue for redirecting to a fund for improving public transport (& sustainable urban transport); and
- remove the FBT concession for cars, fuel and car parking; first, and within two years, remove the statutory formula or any incentive to increase annual kilometres driven in the vehicle.

Comparative interest in this subject has grown while practices are changing in other countries. The overall goals and macro policy context shape the utility of particular measures and their

[56] Ryan M. (2007), *Some greenhouse-friendly tax reforms,* Tax Policy Journal, volume 4, Tax Payers Research Foundation cited in NTC (2008).

[57] Reported to the 2000 Senate inquiry by the Transport Program at University of New South Wales.

longer term consequences. Australian commentators can easily pick on measures, out of context of the package of measures and governing framework, which operate in other jurisdictions that may also be out of date.

In 1999, the UK Inland Revenue introduced a 'Green Tax' package where some subsidies were removed. The EU undertook a legislative review of 'drivers' of unsustainable transport practices, and this approach could be applied in Australia, as it has been to identify direct and indirection discrimination.

In the USA, tax-exempt benefits for transit/public transport were introduced 25 years ago[58]. Initially eligible employers could give workers up to US $15 monthly in tax-exempt transit benefits. Transit ridership increased 25% at participating workplaces. Over time, the allowable monthly benefit has grown to US$105. By 2002 in San Francisco, 27% of employers participated and over one-quarter of weekday commuter rail riders were transit benefit recipients. Employers got a tax deduction for their expense and saved on payroll taxes. Because it's cheaper to give transit benefits than increase salaries, a US$1,200 transit benefit has the same value as a US$2,000 salary rise. Employers can maintain payrolls by converting wages to benefits, and employees can add pre-tax salary dollars to the benefits.

In 2008, a bill was introduced to the US Congress to amend the Internal Revenue Code to allow employers a 50% refundable tax credit of the cost of transit passes provided to employees tax-free. We do not have any further information on the status of this bill which might be affected by the new Obama administration. This background about the USA is helpful to understanding the Canadian situation.

In Canada since 2006, the Canada Revenue Agency offers individual Canadians a non-refundable tax credit to help cover the cost of public transit. Because it is a non-refundable tax credit, anyone who applies does not receive the money in the form of a refund. Instead, the amount claimed is multiplied by the lowest personal income tax rate for the year (15.5% for 2007) and then is deducted from the amount of tax owed for that year. To the individual employee, this means that if a monthly transit pass costs $100, the claim (with receipts and old ticket) would be $1,200, resulting in a tax credit of $180.00 (twelve months multiplied by 15%), as at 2007[59]. From 2007, the public transit tax credit has been expanded to include weekly passes, where they are for four consecutive weeks.

The Canadian tax-credit scheme for transit/public transport was instituted to help ease traffic congestion, improve air quality and health, make public transit more affordable, and to contribute one element of the Government of Canada's environmental agenda to reduce greenhouse gas emissions. It was also redressed the unfair tax treatment of transit commuters whose car-driving colleagues receive free parking at work. The pre-existing tax-exempt status of employer-provided car parking resulted in 80% of car commuters receiving free or subsidized parking[60]. When deciding how to get to work, most commuters only consider out-of-pocket driving costs like parking fees. Tax-exempt parking benefits are thus a major incentive to commute by car, rather than transit/use public transport.

[58] CUTA/ACTU (2005) Issues Paper 15.

[59] http://www.transitpass.ca/about_e.asp

[60] For background to the current scheme, see CUTA/ACTU (2005), 'Federal tax-exempt transit benefits: new insights make the case' , Issues Paper 15 citing CUTA commissioned study by IBI Group (2005).

Policy Clarity for Public Transport Concessions

There is an opportunity for Commonwealth policy to clarify the rationale and equity for concessions for public transport travel.

As part of new governance arrangements, discussed under Terms of Reference (d), the costs of concessions to the public transport sector could be reimbursed from the relevant portfolios: student concessions to be funded by the education portfolio, aged concessions by the health and ageing portfolio; the poor and disadvantaged by the community services portfolio. Such a step could improve cross-portfolio/joined-up decision-making about urban development and other policies in portfolios outside transport that have considerable impacts on transport, e.g. the removal and re-instatement of school catchment areas to increase the potential for children to walk or cycle to school.

10.4 Overcoming Barriers to use of Public Transport

Use of public transport can only occur in specific places and thus overcoming any barriers to using public transport have to be addressed in ways relevant to the local context. In some States, local government has traditionally only co-existed with local representatives of public transport services rather being joined in planning with shared goals to reduce the share of local trips by motor vehicle.

Commonwealth funding for public transport, with walking and cycling opens up vertically integrated services that have shared overarching objectives to reduce reliance on car travel. The program logic for such an objective is that conditions in urban areas need to enable people to move around more easily by walking, cycling and public transport. Innovative services of car-sharing need to become part of that mix.

System failure for existing and potential patrons - For rail upgrade infrastructure and strategically plan appropriate mix and functions of passenger transport modes, with cycling regional networks, in relation to metropolitan centres and between cities and regional towns.

- systematise public transport ticketing policy on concessions, ticket structures and pricing;
- deterrents to public transport use include conditions for walking and cycling in the catchment of the railway stations and interchanges. Priority needs to be accorded to asset management within catchments, and could be assisted by foreshadowed legislation on local government asset management and 'community'/corporate planning;
- metropolitan parking policy also needs to be reviewed, including the delay in introducing a parking standard for small cars, as in jurisdictions overseas;
- support for households that are already car-free and to become car-free. It is known that the low variable cost of car ownership facilitates use – therefore, it is imperative to value and support households that function with no car. This is not happening yet; and
- car sharing – Commonwealth could support a clearinghouse and favourable guidelines, as recommended to the former Australian Greenhouse Office.

It is known that the low variable cost of car ownership facilitates use – therefore, it is imperative to value and support households that function with no car. This is not happening, yet.

10.5 Travel Demand Management Programs and the need for their Evolution

Travel Demand Management (TDM) programs, as their name reflects, are directed to changing the demand for travel – the number of trips, the mode, the timing of the trips – to alleviate urban motor traffic congestion and to manage urban air quality.

TDM's key is 'reducing the need to travel', therefore, by bringing activity centres closer together, within the walking and cycling catchment of the household, or accessible by public transport so that fewer and shorter trips are made by car. A leading international exponent is David Bannister (2005, 2002) who has held many seminars in Australia.

Like other human services, demand and supply are inter-linked as we have described for transport and land use. Once land is developed with a road network, householders tend to invest in more cars and subsequent public transport services find it hard to attract patrons. This illustrates the importance not only of public transit/transport-oriented development (TOD) but also the need to lead development with public transport. Achieving this 'public transport from the outset' synergy, recommended by environment authorities, has been hard to achieve because of the way public transport is funded compared to road funding.

In terms of a 'hierarchy of control' to reduce the pollution hazard of car use, nonetheless, it is necessary to integrate land use-transport planning at the top of a set of controls within an overarching economic and legislative policy framework. This pattern is reflected in the first national initiatives for greenhouse gas reduction from transport mentioned in Chapter 4.4.

Overcoming barriers to the supply of public transport (with walking, cycling and car-sharing services) can be understood as next level down in the hierarchy – for without access and capacity in the specific place, little change is feasible. Typical supply-side measures include:

- Additional public transport services
- provision of more, and more secure, parking facilities near railway stations generally and of specific park-and-ride facilities in particular
- bus (and light rail) priority measures on the road network
- high occupancy vehicle lanes, the use of 'tidal flow' to optimise the use of available road space, tolling (and time-tolling) of roads as a form of congestion charging
- public transport ticketing – concessions, structure and pricing of tickets
- bus drivers relieved of ticketing function
- parking policy – new developments, on-street pricing according to time, size and performance of vehicles
- development of safe cycling routes to stations and 'activity centres' and provision of secure bicycle parking and bicycle lockers at stations, and end-of-trip facilities at 'activity centres'
- installation of accessible facilities.

Typical demand-side measures for management travel include:

- a focus on communications about available services – using social marketing techniques
- community education of the availability of public transport and the benefits of substituting some car trips by public transport, cycling and walking

- promoting the use of telecommunications (e.g. teleworking) as an enabler to change travel patterns
- promoting and funding initiatives for programs to encourage the shift to public transport and to walking and cycling that may be sponsored by government, employers, schools/tertiary education, councils, public transport operators and community groups, such as bicycle user groups.

TravelSmart

In addition to State-based programs, the Federal government has been providing funds to the States for 'behaviour change' programs, under the trademark TravelSmart, funded from greenhouse budget administered by the former Australian Greenhouse Office (AGO) within the Department of Environment, Water, Heritage and the Arts. In the first five years or so, the AGO's Travel Demand Management program hosted educational day-long seminars with international speakers in all major cities, and maintained a supported TDM Network of practitioners, e .g. on TOD, car sharing, mobility management etc. It also sponsored and funded applied research, programs, and publications, e.g. health and active travel, on car-sharing (Bergmaier 2004), active travel maps for hospitals and promotional materials. These remain useful resources.

Typically, supply-side interventions were seen as dealing with the physical infrastructure whereas demand-side dealt with the "soft" infrastructure by mass communications and programs in particular settings, such as schools in some regions. As described in the Sustainable Cities report (para 5.86-5.87), TravelSmart was conceived as a 'personalised marketing system' under-pinned by social data gathered from householders, initially in bus route catchment areas where bus services had spare capacity. The idea was to achieve about a 10% reduction in motor vehicle trips by 'sweating the asset' and without making any economic or regulatory changes. Owing to significant neglect of the public transport, walking and cycling-friendly assets, programs were only really suited to areas of under-use, hence the apologia for the 'infrastructure barrier' in Australian urban areas on the TravelSmart website.

International Approaches

Internationally, this approach to TDM has been modified by environmental concerns and tools. Specifically, a new form of practice, Mobility Management arose from joining together TDM with environmental management systems (TDM + EMS = MM); this is practised by organisations, such as city governments, business, and organisational entities that function as 'trip generators' – hospitals, workplaces, all levels of education and event facilities. A significant effect of this synthesis overcame the somewhat artificial segregation of supply and demand-side interventions; this artificiality is also evident in the separation of physical from social infrastructure. Perhaps MM can be understood as a maturation of behavioural TDM initiatives such as Australian TravelSmart-type programs or English TravelWise equivalents.

Significant benefits would now occur by adopting the conceptual framework of Mobility Management in Australia, building on some of the achievements funded through the TravelSmart program. Key concepts of Mobility Management can be mainstreamed into new Commonwealth directions for funding infrastructure and supporting sustainable, health-promoting active travel. Such an approach is evident in *Sustainable Cities* and the concerns about climate change.

By heading in this direction, a package of measures could be developed with and for particular urban regions within large cities or for towns. The area-based package could concentrate

change and gain greater understanding and benefit for the long haul. With the package the measures would include institutional reforms – removing barriers, first – and investing in programs for change. Programs such as workplace travel plans, that apply the principles of environmental management to transport for sustainability, can be developed and undertaken by workplaces that are co-located, operating with the local council through a 'travel management association' as they do in other countries. Funding: from TravelSmart-style programs, evolve new style Mobility Management governance and programs for mainstream transport

The ARA recommends that funding be supported for 'travel demand management' and suggests ways to evolve past Commonwealth programs conducted through the former Australian Greenhouse Office. The ARA supports the principle, with amendment to detail, of the Sustainable Cities recommendation:

Recommendation 10

The committee recommends that the Australian Government provide adequate funding to develop new programmes and support existing programmes, such as TravelSmart and the National Cycling Strategy, that promote and facilitate public and active transport options.

In Australia, TravelSmart as a source of funding became equated with TDM although some ideas have been imported from the European (and North American) practice of Mobility Management. These ideas give a greater emphasis to the social, communicative relation between the organisation that is the trip generator and the people travelling there, particularly where these social relations are ongoing, as in a workplace or educational facility.

This is much more a socio-technical model than a technical model with an add-on of some personalised marketing or 'message marketing'. To reduce car use (or to even eschew a car) requires some capacity-building of both the trip generator and the people travelling there. Organisational changes are likely, to evolve from car dependency, not merely change by individuals. Organisational change includes communications about access, workplace policies and facilities, relations between trip generators and councils to facilitate the 'fine-grained' physical improvements for walking and people cycling, and similarly relations between councils and public transport operators.

Some elements of these programs, such as Transport Access Guides (RTA undated) with the active involvement of staff from the workplace./trip generator were designed to start conversations about supporting and switching to active travel, was transplanted and adapted from an early EU Mobility Management program, called INPHORMM[61].

From a climate change policy perspective, emissions from trips by people travelling, attracted by a facility (hospital, council hall, workplace etc) are treated as indirect emissions (Scope 3) and included in the facility's total emissions (WBCSD 2005). This method of assessing emissions was used by the Environmental Management Program at the University of New South Wales and led its Transport Program, the first workplace travel plan in Australia (Black 1999); the Transport Program innovative achievements are having a lasting benefit.

Urban transport policy requires a break from the past. The Commonwealth government could fund sustainable urban mobility, lead and enable organisational involvement. It is timely too, with changing roles in Commonwealth departments and agencies, for newer style programs to

[61] Information and Publicity Helping the Objective of Reducing Motorised Mobility (INPHORMM) (1999); Black & others (1999) using social science methods referenced in Marston (2003).

be brought within the mainstream of urban management and transport.

10.6 Funding and Support for Active Travel Facilities

Promotion of active travel with resourcing by many larger councils has resulted in an increase in patronage on public transport that is supported by higher levels of cycling. Levels could be higher still if latent demand were to be serviced – an essential requirement for sustainable cities. We have already noted that Brisbane City Council established an active travel unit and is possibly leading our cities. It is desirable to plan cycling and walking facilities in urban areas together to better address the needs of people moving about and interacting (and their 'dynamic envelopes') in particular places; this new approach seeks to increase active travel generally rather than focus on specific modes of travel, as is reflected in older guidelines.

Improved cycling physical infrastructure is a necessary 'framework condition' to enable people to cycle more safely through major road intersections as well as attracting more people to cycle. At present, the inadequate cycling conditions and overloaded public transport services at peak hours, particularly in Sydney, is a deterrent to organisations adopting workplace travel plans as part of their corporate sustainability planning.

Therefore, ARA supports the National Cycling Strategy, as recommended in the Sustainable Cities Report and more recent proposals by the Council of Capital City Lord Mayors, for example, for Commonwealth infrastructure funding to make a step-change in cycling infrastructure - for greater safety and to enable people to use a bicycle to get around and to the station.

10.7 Whole of Government Approach to Public Transport, including Walking and Cycling

Transport planning needs a whole-of-government approach owing to decisions about urban management, sitting of major trip-generating facilities or their intensification etc having an impact on the servicing by public transport.

The WHO has reported that transport is a significant social determinant of health and health inequality and its Commission[62] has recently recommended:

> *6.3. Local government and civil society plan and design urban areas to promote physical activity through investment in active transport; encourage healthy eating through retail planning to manage the availability of and access to food; and reduce violence and crime through good environmental design and regulatory controls, including control of the number of alcohol outlets (see Rec 12.3). (p.66)*

We have already noted that Brisbane City Council established an active travel unit and is possibly leading our cities.

The health sector has an interest therefore in achieving better outcomes for prevention of chronic diseases, as expressed by the National Hospitals and Health Reform Commission. The UK National Heart Health Policy decreed that all NHS health services have travel plans, and this worked well in many locations other than where hospitals had been situated on tracts of land unconnected by public transport.

[62] WHO Commission (2008).

The South Australian government's Thinker-in-Residence, Dr Ilona Kickbusch, has recently recommended that health in all policies. Trip-making is endemic to organisational functioning, such as hospitals and health services. In NSW, the Central Sydney Area Health Service, now amalgamated as Sydney South West Area Health Service, has been progressively undertaken actions on 'active travel for health' (research, programs, publications etc) over the last decade. Potential exists to engage other area/regional health services to undertake similar, adapted activities with their local communities and councils.

Other examples could be provided in the education sector – examples of barriers awaiting systemic reform as well as good practice.

11. International Examples of Public Transport Infrastructure and Services

ToR (f) Best practice international examples of public passenger transport services and infrastructure

ARA's key point is to reiterate the prevalence of national policy and funding of public transport in other countries.

In the economic climate running with concerns about climate change, we need briefly to consider the big picture.

11.1 USA breaks with the past: modernizing passenger rail systems

On 17 February, President Obama spoke of the American Recovery and Reinvestment Act in relation to transport. He said, in part,

> *'Transportation is a great enabler of economic growth, the lifeblood of commerce. It moves people to jobs and goods to the marketplace. Without strong transportation arteries, economies stagnate. "We will use the transportation funding in the Act to deliver jobs and restore our nation's economy. We will emphasize sustainable investment and focus our policies on the people, businesses and communities who use the transportation systems. And, we will focus on the quality of our environment. We will build and restore our transportation foundations until the American dream is returned.*
>
> *We will invest in jobs to expand transit capacity and modernize transit systems. Transit is a centerpiece of my focus on livable communities and our Department will work closely with Vice President Biden's "Middle-class Taskforce" on transit initiatives. "We will invest in jobs to allow Amtrak to add and modernize cars and engines and upgrade its tracks. "We will invest in jobs to expand airport capacity and make safety improvements. "We will invest in jobs to build and rehabilitate and make safer roads, highways, bridges and ports.*
>
> *And we will invest in jobs to launch high-speed rail in America. This will transform intercity transportation in America, reduce our carbon footprint, relieve congestion on the roads and in the skies, and take advantage of a mode of transportation that has already benefited Europe and Japan for many years. "There are those who argue that we need to waive*

environmental regulations to put people to work more quickly, but that is simply not the case. We have a backlog of worthwhile transportation projects waiting for funding that have already met those standards. We are ready to build a new transportation infrastructure and we will work to keep it green.'

ARA considers that those directions are ones we have argued for in this submission.

11.2 Developments in Canada toward a national transit/public transport strategy

In 2007, *A National Transit Strategy for Canada*[63] has been proposed by the Big City Mayors' Caucus of the Federation of Canadian Municipalities (FCM). Together with FCM, the Canadian Urban Transit Association /Association Canadienne du Transport Urbain (CUTA/ACTU) is urging its implementation by the Canadian federal government.

This international example is particularly useful because of the considerable similarities and co-operative relationships[64] between Canada and Australia. It has similarities in geography, spatial demography as a highly urbanised nation, a history of indigenous peoples and colonisation by British but also with French settlers. Canada's national governance is also similar: a federal state bringing together separate provinces (states or territories) for common purposes. At the local level, its Big City jurisdictions are indeed generally bigger than urban municipalities in Australia, with the possible exception of Brisbane City Council.

For Australia, equivalent organisations to FCM and CUTA/ACTU could approximate to the International Association for Public Transport (Australia) (UITP), the ARA, the Bus Industry Confederation, ferries, the Council of Capital City Lord Mayors ('CCLM') and the Australian Local Government Association.

The motivation for the Canadian FCM in proposing this Strategy was that Canada 'lacked a national policy of long-term, predictable transit investment' and in the context where:

Canadian transit ridership grew more than 10% in the first halfof this decade. Many transit systems are serving more riders than ever, while also facing the need to rehabilitate and replace aging infrastructure.

The Canadian Strategy is intended to serve major goals:

- Increased transit ridership and reduced automobile dependency
- Greater economic competitiveness of Canadian cities
- An enhanced quality of urban life
- Reduced greenhouse gas reductions and improved air quality.

Its key elements are:

- Dedicated federal transit investment of $2 billion a year to maintain, renew and expand transit services across Canada

[63] Canadian Urban Transit Association /Association Canadienne du Transport Urbain (CUTA/ACTU) (2007) *A National Transit Strategy for Canada,* Issues Paper 22, April.http://www.cutaactu.ca/en/issue_papers

[64] ABS (2007), *Year Book Australia*, 1301.0.

- Federal tax incentives for individuals to choose transit, such as an income tax exemption for employer-provided transit benefits

[Note: this Canadian tax incentive is discussed in comparison to reforms to Australian tax incentives under Reference E, section 10.3 above.]

- Support for research to enable innovation and make transit operations more effective and efficient
- A requirement for recipient communities to approve integrated land use and transportation plans that make transit the primary means of serving future growth in travel demand
- Intergovernmental cooperation to ensure that accountability measures are in place for ensuring the effective use of funds.

This Strategy has attracted strong stakeholder support from national and city business groups. It responds well to public concerns that:

- 73% believe the federal government is not doing enough to support local transit infrastructure across the country.
- 66% are not confident that all levels of government are working together to meet long-term transit infrastructure needs.
- 61% do not believe that there is enough government support for transit infrastructure to keep up with growth in their community.

The proponents of the Strategy sum up their case:

Clearly, many Canadians are concerned that governments are not doing enough to meet their community's transit infrastructure needs. They also believe the federal government has a leadership role to play.

Strong transit is vitally important to Canada's municipalities as they work to maintain quality of life, support economic development and preserve a healthy environment. Because of growing ridership and aging infrastructure, Canadian transit systems need to invest in the renewal, replacement and expansion of fleets and facilities at a rate that greatly exceeds current funding sources. Without major new funding led by the federal government, current transit systems simply cannot be sustained and future demands will not be met.

Canada is the only G8 nation without a federal policy of long-term, predictable transit investment that recognizes transit's essential role in meeting social, economic and environmental objectives. By implementing the proposed National Transit Strategy, the federal government would correct this situation and enable transit systems across Canada to fulfil their great potential.

The ARA considers that the Canadian situation resembles conditions in Australia and that the Canadian proposal would appeal to the Australian public.

The ARA, therefore, recommends the Senate Committee to closely consider *A National Transit Strategy for Canada*, proposed by the Big City Mayors' Caucus of the Federation of Canadian Municipalities, as a suitable model to adapt and consult on with Australians.

11.3 Points Relating to the International Context

The international setting provides some interesting lessons for the Australian situation.

- cities in Eastern and Western Europe have public transport networks approximately three times as dense as Melbourne's per urban hectare;
- service provision is lower in Melbourne with vehicle/km per person 137% lower than in Western Europe and 57% lower than in Eastern Europe; the average speed of Melbourne's public transport vehicles is faster than the average in sample cities in Asia, Eastern Europe and Western Europe. However, Melbourne performs poorly in terms of the relative speed of public transport compared to cars, at 74% of the average speed on the road network. This places Melbourne in the lower third of the cities reviewed; and
- *'Sydney has been ranked at the bottom of a list of the world's most important 20 cities for the quality of its transport infrastructure, behind Mumbai, Sao Paulo and Mexico City. With no underground metro, a shortage of taxis and worsening congestion, Sydney fell short of its international peers according to the 'Cities of Opportunity' report, compiled by the New York Chamber of Commerce and PriceWaterhouseCoopers'*[65].

Australians have visited many Asian, European and American cities that have been upgrading their rail and public transport systems and ticketing systems; they are mystified by the evident difficulty of transplanting systems of service to Australian cities: on Transit-oriented-Development (TOD) examples are useful for full connectivity both spatially and temporally with development, e.g. 'car-free' developments built with car-sharing in locations with rail station catchments. Many examples are cited in the NSW Planning Guidelines on Walking and Cycling – so it's lot lack of information that is the barrier to better outcomes.

Knowledge development for reducing greenhouse gas emissions in cities, including transport[66]. We note the valuable role played by the US Transportation Research Board and the potential for better networking of transport researchers and practitioners – where transport is broadly defined to include the social and spatial policy research and practice.

Recognition that sustainable buildings are not sufficient for urban sustainability. For sustainability, for Household Assistance Measures under CPRS, for social housing it is essential to incorporate 'active travel' packages, including car sharing – otherwise we shall experience the phenomenon described as 'driving between green buildings'.

12. Conclusions

The Australasian Railway Association appreciates the opportunity to make a submission to this Inquiry on behalf of the Australian Rail Industry, especially the entire rail passenger sector.

The timing of this Inquiry is indeed very opportune, and provides the Senate the potential to guide the re-shaping of the way Australia plans and manages the construction of transport Infrastructure.

The Australian passenger rail sector comprising both trains and trams are facing enormous

[65] *Sydney Morning Herald* article 'Sydney's transport lags rest of world'11 December 2008.

[66] See World Bank partnership with the University of California's Energy Institute working on Policy and regulatory options can help lead to the construction of efficient buildings, better public transit and use of "green financing". " If we don't deal with the mitigation issue in cities, then we're not going to deal with climate change at all," said Warren Evans, director of the World Bank's Environment Department. http://go.worldbank.org/3FJ3S264I0

challenges in moving significantly increased numbers of people who have been drawn to rail by increasing fuel prices and the need to protect our environment.

Furthermore, increased passenger numbers appear to be holding at higher levels in spite of recent fuel prices decreases.

The benefits to the people of Australia are potentially enormous both in terms of impact on carbon emissions but also on the functionality of Australian cities and towns in their capacity to move people safely and efficiently.

The Australian rail industry is ready and willing to tackle the challenges of the future. However, unless appropriate and effective planning and linked infrastructure expenditure are achieved, with accountability, Australia will experience worsening car traffic with very significant adverse economic, environmental and health impacts, and continuing social exclusion.

This Inquiry provides an excellent opportunity to advance discussion of reforming the governance structure underpinning transport planning and infrastructure to enable effective and efficient management of the way our cities, towns and regions transport people and goods, in the long term.

The ARA fully supports the Inquiry's efforts and is ready to provide assistance to assist the Inquiry in its endeavours.

After work commuters crammed onto Platform 3 at Wynyard Station. Photo: Peter Morris[67]

[67] Bibby P. (2009) '22 million more trips on public transport' *The Sydney Morning Herald* 22 February 2009

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APPENDIX

Appendix 1 – Extract from Sustainable Cities on Transport Infrastructure Provision and Funding

5.43 The committee believes that the way in which transport infrastructure is currently budgeted for undermines the type of transport interconnectedness that is necessary for sustainability. The PIA draws attention to the fact that there are still separate budgets for roads, public transport, airports and pedestrian and cycling infrastructure, leading to a 'rather narrow vision'[68].

5.44 The PIA suggests that transport infrastructure funding should actually aim to reduce private transport needs. The way infrastructure is conceived of can add to the sustainability of the transport system:

An infrastructure approach more in tune with sustainability goals would look into transport reduction potential rather [than] trying to further expand mobility. For instance, this approach would examine how the excess of traffic demand that leads to congestion could be shifted to other modes of transport, to closer destinations and even prevented through alternative, non-transport inducing activities such as working at home or shopping through the internet. This highlights the importance of a close integration of infrastructure (supply) management and travel demand management approaches [69].

5.45 The Australasian Railway Association puts the case for increased use of rail as the safest form of land transport and also the lowest contributor to greenhouse gas emissions, commenting that 'the sustainability advantages of rail are often not taken into account in infrastructure investment decisions'[70].

5.46 The PIA also highlighted the lack of funding for rail infrastructure, pointing out that there is no designated Commonwealth funding programme for urban railway infrastructure similar to those for freeway construction. This is 'severely out of tune with urban transport funding regimes in practically every other OECD country' and explains why 'Australian urban rail systems have been struggling to keep up with the pace of metropolitan growth'[71]. This means outer suburbs are highly car-dependant. The Institute recommends a 'significantly boosted federal commitment to upgrading and expanding fixed public transport systems'.

5.47 Decisions on infrastructure that are made now will have an impact on future sustainability. The committee reiterates that it is important for decision-makers to understand the interconnectedness of the urban environment settlement and transport environment.

[68] Planning Institute of Australia, Submission 168, p.56.

[69] Planning Institute of Australia, Submission 168, p.56

[70] Australasian Railway Association Inc, Submission, 82, pp.2-3.

[71] Planning Institute of Australia, Submission 168, p.56.