
The Parliament of the Commonwealth of Australia

Planning, Procurement and Funding for Australia's Future Infrastructure

**Report on the Inquiry into Infrastructure Planning and
Procurement**

House of Representatives
Standing Committee on Infrastructure and Communications

December 2014
Canberra

© Commonwealth of Australia 2014

ISBN 978-1-74366-245-8 (Printed version)

ISBN 978-1-74366-246-5 (HTML version)

This work is licensed under the Creative Commons Attribution-NonCommercial-NoDerivs 3.0 Australia License.



The details of this licence are available on the Creative Commons website: <http://creativecommons.org/licenses/by-nc-nd/3.0/au/>.



Contents

Foreword	v
Membership of the Committee	viii
Terms of reference	x
List of abbreviations	xi
List of recommendations	xii

REPORT

1	Introduction	1
	Referral and conduct of the Inquiry	1
	Scope of the Inquiry	2
	Structure of the report	3
2	Planning	5
	Planning, assessment and delivery of public infrastructure	5
	Infrastructure pipeline	11
	Committee conclusions	13
	The importance of national and regional strategies	15
	Preservation of land corridors for infrastructure	18
	Committee conclusions	22
	Skills and capabilities	22
	Committee conclusions	25
3	Funding and financing	27
	Public private partnerships	28

User charging.....	29
Inverted bid model	31
Debt financing and bonds	34
Capital recycling	37
Committee conclusions.....	39
4 Procurement	41
Tendering processes	41
Cost-benefit analysis.....	47
Benchmarking	50
Special procurement agencies	51
Managing risk.....	52
Committee conclusions.....	54

DISSENTING REPORT

Labor Members' Dissenting Report	59
--	----

APPENDICES

Appendix A – List of submissions	67
Appendix B – List of exhibits	69
Appendix C – List of public hearings and witnesses	75



Foreword


- 1.1 The delivery of infrastructure to support a growing and demographically diverse population will drive productivity and improve living standards for all Australians. In assuring all stakeholders – the community, governments and business – that the nation’s future infrastructure needs can be met, it is incumbent upon all governments to ensure appropriate planning and procurement processes are developed and instituted. These should be complemented by value for money funding and finance mechanisms. The Committee was tasked with reviewing the Australian Government’s response, in an infrastructure sense, to a variety of factors including demographic change, increasing fuel costs and housing affordability. The Committee has heard some compelling evidence to suggest changes in the way the Government addresses infrastructure planning and funding are needed.
- 1.2 The Inquiry into planning and procurement received many submissions from a wide range of interested parties; from Government departments to peak industry bodies and advocacy groups. Many of these appeared as witnesses at the 12 public hearings overseen by the Committee and on behalf of the Committee I wish to thank them for their time and expertise
- 1.3 The Committee’s report examined the planning of infrastructure, recommending that improved coordination and harmonisation of Commonwealth, state and territory-based processes be undertaken. The way our Federation is framed can lead to duplication of services and this leads to duplication of process which is costly in both time and money. The Committee is mindful of the constitutional arrangements in our country but also believes greater effort in reducing duplication is needed. The Committee emphasised the importance of identifying a long term pipeline of infrastructure projects to provide certainty for stakeholders regarding future planning. In developing this pipeline, the Committee notes a recently announced expansion of Infrastructure Australia’s functions. The Committee further recommended that, where required,

relevant land corridors be identified and preserved to meet future infrastructure needs.

- 1.4 There are significant opportunities to encourage investment in infrastructure through various models. However, numerous submissions indicated there is limited technical capacity within Commonwealth departments, causing substantial increases in cost and risk to both taxpayers and investors. The Committee recommended that the Australian Government develop innovative financing and funding models for the development of public infrastructure, providing flexibility and the ability to respond to associated costs and inherent risks. In particular, closer consideration should be given to options including forward tax incentives, user charging, inverted bidding, infrastructure bonds and capital recycling.
- 1.5 The Committee also made recommendations for procurement reform. It called upon the Australian Government to consider innovative procurement practices including promoting the use of Building Information Modelling (BIM) and co-funding the design or purchase of intellectual property rights, particularly where they form part of an innovative infrastructure tender proposal. The recommendation also called for the streamlining and centralising of elements of the tender process and the de-bundling of project elements to allow greater competition between industry participants.
- 1.6 The Committee also made some recommendations aimed at Infrastructure Australia's involvement in the infrastructure procurement process including improving their technical capability and the appointment of a Chief Engineer. Having the technical capacity to determine the most appropriate infrastructure design, construction and procurement model on a case by case basis was considered critical when dealing with large projects. It was recommended that a methodology be developed and applied to evaluate the wider economic benefits of infrastructure projects receiving Commonwealth funding of over \$100 million. It was further recommended that the role of Infrastructure Australia as a specialist procurement agency be enhanced, allowing the provision of policy advice and support to government agencies undertaking infrastructure procurement.
- 1.7 The Committee was mindful of the recently released Productivity Commission report entitled Public Infrastructure and was careful not to duplicate the Commission's findings but rather identify ways those findings could be enhanced or expanded upon. An outline of the Commission's findings appears on pages 2 and 3 of this report and I recommend that they be read in conjunction with this report.

1.8 Finally, I would like to thank the individuals and organisations who made contributions to the inquiry both via submissions and through appearances at public hearings. The Committee has made ten recommendations we feel will progress the planning and procurement of critical infrastructure in Australia. As Chairman I wish to acknowledge Members of the Committee who brought their varied experience to bear during an inquiry that covered a number of complex matters. It is clear that there is a need for significant structural change to current processes in the planning, procurement and funding of infrastructure in Australia and it is hoped that the recommendations of this Committee contribute to further reform in this area. On behalf of the Committee I also wish to thank the Committee Secretariat for their hard work in supporting the Committee during this Inquiry.

Jane Prentice MP
Chairman



Membership of the Committee

Chairman Mrs Jane Prentice MP

Deputy Chair The Hon Matt Thistlethwaite MP

Members

The Hon Mal Brough MP (until 24.9.2014)	Mr Keith Pitt MP
Mr Andrew Giles MP (from 26.3.2014)	Ms Melissa Price MP
Mr Stephen Jones MP (until 26.3.2014)	Ms Michelle Rowland MP
Ms Nola Marino MP	Mr Bert van Manen MP (from 24.9.2014)
Mr Clive Palmer MP	Mrs Lucy Wicks MP

Supplementary Members

The Hon Ed Husic MP (from 18.3.2014)	The Hon Alannah MacTiernan MP (from 18.6.2014)
--------------------------------------	---

Committee Secretariat

Secretary	Stuart Woodley (from 18.8.2014) Russell Chafer (until 1.8.2014)
Inquiry Secretary	Muzammil Ali
Principal Researcher	Bill Pender
Senior Researcher	Zoe Smith
Researcher	Belynda Zolotto
Administrative Officer	Cathy Rouland (from 13.10.2014) Jhie Gough (until 7.11.2014)



Terms of reference

Australian Communities in urban and regional areas face increasing challenges in deciding where and how to build new infrastructure that will increase productivity and support our living standards. Population growth, demographic change, extreme weather events, increasing fuel costs, housing affordability, technological change, and resource limitations, make dealing with these challenges all the more difficult.

That the Committee consider:

1. What initiatives are operating around Australia at local and state government levels that might lower the cost of planning approvals and reduce timeframes for delivery of projects?
2. Of those initiatives that the Committee has considered, are any able or appropriate to be implemented on a broader basis, including at Federal level?
3. Are local, state and federal governments adequately considering the infrastructure challenges that they face and do they have long term plans in place to deal with those challenges?
4. For governments that are engaging in long term planning for future infrastructure investment, are they taking steps to protect the land and corridors that are needed to deliver those infrastructure projects in the future?
5. What is industry doing to reduce the regulatory and other costs that it faces in competing for infrastructure projects?
6. How can Australia increase or deepen the competitive market for infrastructure provision and funding in Australia?



List of abbreviations

ARA	Australasian Railway Association
AOFM	Australian Office of Financial Management
ATA	Australian Trucking Association
ATSE	Australian Academy of Technological Sciences and Engineering
BIM	Building Information Modelling
CCFWA	Civil Contractors Federation (WA Branch)
CME	Chamber of Minerals and Energy of Western Australia
COAG	Council of Australian Governments
GDP	Gross Domestic Product
GFC	Global Financial Crisis
IP	Intellectual property
IRR	Internal rate of return
NGAA	National Growth Areas Alliance
NSW	New South Wales
PPP	Public Private Partnerships
UDIA	Urban Development Institute of Australia
UK	United Kingdom



List of recommendations

1 Introduction

2 Planning

Recommendation 1

The Committee recommends that the Australian Government, through COAG, facilitate greater coordination of infrastructure identification and planning between the Commonwealth, State, Territory and local governments, including harmonisation of planning regulations and processes, and reducing regulatory duplication between different levels of government.

Recommendation 2

The Committee recommends that the Australian Government continue to facilitate the development of a pipeline of public infrastructure projects, in conjunction with state and territory governments, to ensure long-term continuity of infrastructure investment and better promote the efficient and cost-effective use of resources by all stakeholders.

Recommendation 3

The Committee recommends that the Australian Government consider the adequacy of the fifteen year projection of the Infrastructure Plan to be developed and maintained by Infrastructure Australia taking into account the need for longer term forecasting of infrastructure decisions and the need for business certainty.

Recommendation 4

The Committee recommends that the Australian Government via COAG pursue designation of land corridors for the development of significant

infrastructure projects on the basis that these are integrated into the infrastructure planning process of relevant jurisdictions and are supplemented by a demonstration of future need.

Recommendation 5

The Committee recommends that the Australian Government, through COAG, pursue a national system for the registration of infrastructure-related professions including those in the construction and engineering sectors so as to provide recognition of qualifications across Australia to better promote the efficient and cost-effective development of infrastructure.

3 Funding and financing

Recommendation 6

The Committee recommends that the Australian Government, through Infrastructure Australia, develop innovative financing and funding models for the development of public infrastructure with a view to making the financing and funding of public infrastructure more flexible and responsive to the actual costs and risks in the delivery and operation of that infrastructure. Options to consider and further develop include:

- User charging,
- Inverted bidding,
- Promotion of infrastructure bonds, and
- Capital recycling.

4 Procurement

Recommendation 7

The Committee recommends that the Australian Government propose to Infrastructure Australia that it develop innovative procurement practices for the tendering of public infrastructure with a view to making tender processes, more efficient, cost effective and flexible. Some of the options that should be considered include:

- 3D imaging of infrastructure and the need for regulation of the technology to be used;
- Promoting the use of Building Information Modelling;
- Co-funding design or purchase of intellectual property rights;
- The development of inverted bidding tender processes;
- Streamlining of tender processes and documentation;

- De-bundling projects;
- Centralising common elements of bids to make them more cost-effective; and
- Shortlisting of favoured tenders.

Recommendation 8

The Committee recommends that the Australian Government propose to Infrastructure Australia that it develop a methodology for evaluating the wider economic benefits of infrastructure projects with a view to applying this methodology to all major public infrastructure projects involving Commonwealth capital expenditure of more than \$100 million.

Recommendation 9

The Committee recommends that the Australian Government legislate to enhance the role of Infrastructure Australia as a specialist interdisciplinary procurement agency, with the capacity to provide high-level policy advice and direct support to government agencies undertaking infrastructure procurement, including development of best practice policies in finance, funding and procurement and benchmarking infrastructure procurement.

Recommendation 10

The Committee recommends that the Australian Government, through COAG, work with state and territory governments to develop better risk management strategies in infrastructure procurement, with a focus on greater collaboration between government and the private sector in the identification and allocation of risk in the design, construction and management of public infrastructure.

Introduction

Referral and conduct of the Inquiry

- 1.1 The Inquiry into infrastructure procurement and planning (the Inquiry), was referred to the House of Representatives Standing Committee on Infrastructure and Communications (the Committee) on 20 March 2012. The Inquiry was referred to the Committee by the Minister for Infrastructure and Regional Development, the Hon Warren Truss MP.
- 1.2 Immediately after referral, details of the Inquiry were made available on the Parliament of Australia's website calling for written submissions. The Inquiry was also promoted through an extensive mail out to interested parties, including peak bodies and organisations, and the relevant government departments.
- 1.3 Over the course of the Inquiry, the Committee received 32 submissions from organisations, government authorities and individuals. A list of submissions is at Appendix A. A range of publications, documents and supplementary material received during the Inquiry was received as exhibits. A list of exhibits is at Appendix B.
- 1.4 In addition, the Committee undertook an extensive program of public hearings. Between May 2014 and October 2014 the Inquiry held 12 public hearings, including one interstate public hearing. Details of the public hearings, including a list of witnesses, are at Appendix C.

Scope of the Inquiry

- 1.5 The scope of the Inquiry was largely defined by the terms of reference which direct the Committee to consider investigating ways to improve

infrastructure planning and procurement and whether governments are prepared for future challenges they face in delivering major projects.

- 1.6 The timing of the Inquiry coincided with the Productivity Commission's (the Commission) inquiry report entitled *Public Infrastructure* tabled in May 2014.¹ The Commission's key points and findings are set out below in Box 1.1:

Box 1.1: Productivity Commission inquiry report key points and findings

- There is an urgent need to comprehensively overhaul processes for assessing and developing public infrastructure projects.
 - ⇒ There are numerous examples of poor value for money arising from inadequate project selection, potentially costing Australia billions of dollars.
 - ⇒ Additional spending under the status quo will simply increase the cost to users, taxpayers, the community generally, and lead to more wasteful infrastructure.
 - ⇒ Reliance on the notion of an infrastructure deficit, too, could encourage poor investment choices.
- It is essential to reform governance and institutional arrangements for public infrastructure to promote better decision making in project selection, funding, financing and the delivery of services from new and existing infrastructure.
- Well-designed user charges should be used to the fullest extent that can be economically justified. However, governments will have to continue to fully or partly fund some infrastructure projects and address equity issues.
- Significant institutional and longer-term road pricing arrangements will create more direct links to road users, taking advantage of advances in vehicle technology.
- Private sector involvement in infrastructure provision and/or financing delivers efficiency gains only if well designed and well implemented.
 - ⇒ Private financing is not a 'magic pudding' – ultimately users and/or taxpayers must foot the bill.
 - ⇒ Government guarantees and tax concessions are not costless and often involve poorly understood risks.
- Governments will have some capacity to fund more projects than under current fiscal and debt management practices, provided the reform package in this report is implemented to ensure the selection of projects with strong net

1 Productivity Commission, *Public Infrastructure: Inquiry Report*, No. 71, 27 May 2014, <<http://www.pc.gov.au/projects/inquiry/infrastructure/report>>, accessed 4 November 2014.

benefits.

- Data problems limit analysis and benchmarking. A coordinated and coherent data collection process will address this and improve future project selection decisions.
- Nevertheless, there is evidence of recent significant increases in the costs of constructing major public infrastructure in Australia. Elevated labour costs due to the mining construction boom has been one factor, but no single input has played a decisive role in cost increases.
- Until recently, labour productivity growth in the construction sector generally has been sluggish. There is no conclusive evidence that Australian levels of productivity in construction are significantly different from other developed countries.
- The industrial relations environment in the construction industry remains problematic, mainly in general rather than civil construction, with the problems much greater for some sites, unions and states. Governments can use their procurement policies to drive reform, and penalties for unlawful conduct should rise.
- Despite significant concentration in the market for large public infrastructure projects, the market appears to be workably competitive today, though a few simple measures would make it more so and would reduce the cost pressures facing procurers.
- There is significant scope to improve public sector procurement practices and lower bid costs for tenderers, with potentially large benefits for project costs and timing.

Source: *Productivity Commission, Public Infrastructure: Inquiry Report, Volume 1, No. 71, 27 May 2014, p. 2.*

Structure of the report

- 1.7 Chapter 2 examines the planning, assessment and delivery of infrastructure and how the current Infrastructure Australia's Fifteen Year Infrastructure Plan can be used as a tool for all stakeholders to forecast future infrastructure needs beyond its current remit. The chapter also considers how governments at all levels can better coordinate and collaborate on their infrastructure planning and delivery processes to reduce the regulatory burden on stakeholders, better utilise national and regional strategies, and preserve land corridors for future infrastructure requirements. Finally, the deficit in a range of infrastructure-related skills and capabilities are reviewed, particularly those related to the field of engineering.

- 1.8 Chapter 3 considers issues relating to the funding and financing of infrastructure. In particular, it notes the detailed work undertaken by the Productivity Commission in its recent inquiry into public infrastructure but notes that a number of issues raised in that report are worthy of further exploration. These issues include public private partnership arrangements, inverted bidding, debt financing and bonds, and asset recycling.
- 1.9 Chapter 4 identifies a range of matters that have a bearing on the procurement process including tendering processes, cost-benefit analysis, benchmarking, the use of special procurement agencies and the management of risk.

Planning

- 2.1 The delivery of public infrastructure is generally a long-term proposition requiring efficient, consistent and forward looking processes in planning, assessment and decision making. There is a need to ensure that governments at all levels better coordinate their efforts to reduce the administrative and regulatory burden related to infrastructure delivery, including the need for clarity when preserving land corridors for future infrastructure requirements. Deficiencies, particularly with regards to engineering skills are evident, particularly in the planning and procurement phases of infrastructure delivery.

Planning, assessment and delivery of public infrastructure

- 2.2 Effective planning is vital to the delivery of public infrastructure. Infrastructure delivery requires planning at all stages from initial conceptualisation to decommissioning. The Productivity Commission's report suggested that governments sometimes have difficulty in determining 'what, where and when infrastructure projects should be scoped and constructed'.¹ In this regard, the onus falls on governments to ensure that appropriate bodies exist for infrastructure planning, assessment and delivery.
- 2.3 There is no national framework for the delivery of public infrastructure, with each jurisdiction taking a different approach to the delivery of significant infrastructure within its remit. At the Commonwealth level, Infrastructure Australia is an independent authority that provides the Australian Government with the information to make decisions on future

1 Productivity Commission, *Public Infrastructure: Inquiry Report*, Volume 1, No. 71, 27 May 2014, p. 8.

infrastructure needs and how these could be achieved.² Responsible to the Minister for Infrastructure and Transport, Infrastructure Australia is charged with providing governments, investors and infrastructure owners with advice on matters including:

- Australia's current and future infrastructure needs;
- mechanisms for financing infrastructure investments; and
- policy, pricing and regulation and their impacts on investment and on the efficiency of the delivery, operation and use of national infrastructure networks.³

2.4 The *Infrastructure Australia Amendment Act 2014* has provided Infrastructure Australia with functions including:

- the audit of nationally significant infrastructure;
- the development of Infrastructure Priority Lists and Infrastructure Plans;
- the evaluation of infrastructure proposals;
- the provision of advice on infrastructure matters;
- identifying and managing impediments to investment in nationally significant infrastructure;
- promoting infrastructure investment;
- reviewing proposals to harmonise policy and law connected to the development of, and investment in infrastructure; and
- the review of infrastructure funding programs.⁴

2.5 Perhaps the key elements of these reforms are those recently requested through a *Statement of Expectations for the Board of Infrastructure Australia* by the Minister for Infrastructure and Regional Development:

- delivery by the end of 2014 of an evidence-based audit of Australia's infrastructure base, in collaboration with the states, to be revised every five years;
- delivery by the end of 2014 of a comprehensive audit of northern Australia's infrastructure, in consultation with the Department of Prime Minister and Cabinet that will inform the Australian Government's White Paper on developing northern Australia; and

2 Infrastructure Australia, (viewed 27 October 2014)
<<http://www.infrastructureaustralia.gov.au/>>

3 Infrastructure Australia, *About Infrastructure Australia* (viewed 17 February 2014)
<<http://www.infrastructureaustralia.gov.au/about/>>.

4 Section 5, *Infrastructure Australia Amendment Act 2014*.

- delivery by April 2015 of a fifteen-year rolling infrastructure plan that should:
 - take into account the outcomes from the audits and where appropriate the lists and evaluations developed and undertaken by IA;
 - clearly specify infrastructure priorities at national and state levels for the period covered by the Plan;
 - identify short and long term productivity gains and any complementary requirements needed to maximise productivity gains;
 - articulate a time frame in which the priorities need to be developed, commencing with those of highest productivity value;
 - be developed in close consultation with state and territory governments;
 - consider when identifying the future infrastructure need, relevant infrastructure characteristics required to service that need;
 - include clear roles and responsibilities of the states and territories in collaboration with the Commonwealth, in terms of their involvement with the identification of infrastructure needs;
 - only recommend specific infrastructure projects where an evaluation has been undertaken, including a rigorous cost-benefit analysis;
 - encourage and drive private investment and private financial funding models in infrastructure where appropriate;
 - inform the development of the Infrastructure Priority Lists; [and]
 - be updated at least every five years to accommodate changes in Australia's infrastructure needs.⁵

2.6 These policies are seen by contributors to the Committee's inquiry as being vital for long term planning of infrastructure requirements and for building business confidence. They provide the implicit understanding that there will be a continuity of infrastructure projects – a pipeline.⁶

2.7 The NSW Government has adopted a similar approach to that of the Australian Government, with Infrastructure NSW identifying and

5 The Hon Warren Truss MP, Deputy Prime Minister and Minister for Infrastructure and Regional Development, Statement of Expectations Issued to Infrastructure Australia (viewed 13 November 2014) <
http://www.minister.infrastructure.gov.au/wt/releases/2014/November/wt227_2014.aspx
>

6 See for example: Mr John Alexander MP, *Committee Hansard*, 16 July 2014, p. 3; Engineers Australia, *Submission 1*, p. 3.

prioritising the delivery of critical infrastructure within that state.⁷ Other states and territories achieve planning outcomes via a range of instrumentalities.⁸

- 2.8 The need for a consistent national approach to planning was highlighted in a number of submissions. Consult Australia suggested that each jurisdiction institute independent agencies for the provision of advice about infrastructure planning and delivery. This would allow for the development of clear processes to assess, rank and prioritise projects for delivery, while ensuring the independence both of this advice and decisions regarding the delivery of projects.⁹
- 2.9 The Australian Constructors Association urged governments to 'develop infrastructure delivery/lead agencies to be responsible for delivering, or coordinating the delivery of, identified major infrastructure projects'.¹⁰ The Chamber of Minerals and Energy of Western Australia also advocated the establishment of 'a dedicated and centralised economic infrastructure unit' in Western Australia to support government agencies in the delivery of complex infrastructure projects.¹¹
- 2.10 The Productivity Commission noted that 'building a credible and efficient government and institutional framework for project selection is a critical and urgent task for governments':
- Selecting the right projects is the most important aspect of achieving good outcomes for the community, irrespective of the funding and financing mechanisms used. It is at the stage before contract signing that governments have the best opportunity to ensure infrastructure meets the needs of the community efficiently and cost effectively.¹²
- 2.11 In addition to developing more robust planning systems within jurisdictions, the need to develop greater coordination and harmonisation of planning was identified in the evidence presented to the Committee. The National Growth Areas Alliance (NGAA) noted that:

7 Infrastructure NSW (viewed 27 October 2014)
<<http://www.infrastructure.nsw.gov.au/about-insw.aspx>>

8 See for example: Northern Territory Government, *Submission 15*; Queensland Government, *Submission 18*; Government of South Australia, *Submission 19*; Victorian Government, *Submission 28*; Tasmanian Government, *Submission 30*.

9 Consult Australia, *Submission 2*, pp. 4–5.

10 Australian Constructors Association, *Submission 16*, p. 5.

11 Chamber of Minerals and Energy of Western Australia, *Submission 3*, p. 5.

12 Productivity Commission, *Public Infrastructure: Inquiry Report*, Volume 1, No. 71, 27 May 2014, p. 8.

... what tends to happen at the moment is that state governments have their view of what needs to happen, individual councils have their list of projects, that federal government via Infrastructure Australia or via other departments has lists of projects and what is missing is the spatial overlay. If, for example, the federal government wants to invest in facilities, whether it be Medicare offices, whatever it is, is there a spatial impact analysis of where is the best place to put those resources.¹³

2.12 The NGAA also identified barriers 'around the extent to which local governments can engage with state and federal governments in a whole of place approach'.¹⁴

2.13 In its submission, the Australian Academy of Technological Sciences and Engineering (ATSE) observed that 'Australia's adversarial political system and three tiers of government make infrastructure planning difficult'. ATSE proposed that 'a formal consultative mechanism' be 'introduced at the earliest possible planning stage that attempts to resolve differences as quickly as possible'.¹⁵ The Urban Development Institute of Australia (UDIA), noted that 'in the past, governments have failed to adequately take in to consideration the impact of infrastructure planning decisions on the plans, goals and objectives of other levels of Government, and other jurisdictions'. The UDIA urged:

... planning and funding to be coordinated across different levels and functions of government (e.g. land use and transport planning, economic and urban development and environmental assessment) to ensure the most efficient and cost effective infrastructure outcomes.¹⁶

2.14 A particular issue was the duplication of approvals processes, particularly for environmental approvals. The Property Council of Australia advocated bilateral agreements between the Commonwealth and state and territory governments to overcome duplication between state and federal environment protections, stating that 'there has been no credible evidence presented that this duplication results in environmental benefits'.¹⁷

13 Ms Ruth Spielman, National Growth Areas Alliance, *Committee Hansard*, 7 August 2014, p. 3.

14 Ms Ruth Spielman, National Growth Areas Alliance, *Committee Hansard*, 7 August 2014, p. 3.

15 Australian Academy of Technological Sciences and Engineering, *Submission 27*, p. [3].

16 Urban Development Institute of Australia, *Submission 9*, p. [2].

17 Property Council of Australia, *Submission 22*, p. 9.

Harmonisation of regulation was sought in other areas as well, such as emissions legislation and occupational health and safety requirements.¹⁸

- 2.15 The Productivity Commission's report made a range of findings and recommendations that would assist governments to develop a more coordinated approach to infrastructure planning and delivery, including those directed at project selection, and improving governance and institutional arrangements. The Commission noted that the implementation of these recommendations would 'benefit from a level of coordination and cooperation between jurisdictions', and that:

The active support of Australian Government Ministers responsible for various types of infrastructure will also be an important factor in progressing reforms at the state, territory and local government levels.

As a means of achieving this, and while not a prerequisite for any of the reforms proceeding, there would be further benefit in incorporating a subset of them in a national agreement, or a series of formal bilateral agreements between the Australian Government and the relevant State or Territory Government.¹⁹

- 2.16 In its submission, the Department of Infrastructure and Regional Development identified work on coordinating infrastructure planning already occurring under the auspices of COAG, including:

- the development of national port and freight initiatives;
- safeguarding the operation of nationally significant airport infrastructure from adjoining development;
- mapping of national freight networks;
- alignment of planning across all modes and levels of planning to optimise opportunities for coordination; and
- prioritising infrastructure projects on a national basis.²⁰

- 2.17 The Australian Government also offers the Major Project Facilitation programme that provides proponents of projects valued at above \$50 million in all industries, including infrastructure, with assistance on approval processes, coordination of simultaneous processes across government without duplication, and a single point of contact for the resolution of issues.²¹

18 Ms Rhianne Jory, Australasian Railway Association, *Committee Hansard*, 18 June 2014, p. 2; Ms Jessica Hall, Department of Infrastructure and Regional Development, *Committee Hansard*, 28 May 2014, p. 6.

19 Productivity Commission, *Public Infrastructure: Inquiry Report*, Volume 1, No. 71, 27 May 2014, p. 37.

20 Department of Infrastructure and Regional Development, *Submission 11*, p. 4.

21 Department of Infrastructure and Regional Development, *Submission 11*, p. 11.

- 2.18 The Department highlighted the work of the COAG Transport and Infrastructure Council, noting that in December 2013 the Council was commissioned to examine:
- practical options to accelerate project delivery, including how planning and approval timeframes can be fast-tracked;
 - advice on the next major transport reforms, including proposals for heavy vehicle charging and investment reform;
 - options to increase private sector investment in infrastructure projects; and
 - ways to prioritise projects that improve productivity or unlock economic growth potential including in regional economies.²²
- 2.19 The Department also highlighted its own infrastructure coordination work, advising the Committee that it:
- ... works closely with state, territory and local governments, and the private sector to ensure that the right projects are selected for delivery at the right time based on robust, evidence-based analysis and using an appropriate model for delivery.²³

Infrastructure pipeline

- 2.20 One aspect of infrastructure planning regularly advocated in the evidence presented to the Committee was the desire to create an infrastructure pipeline – a list of projects to which governments were committed and around which the private sector could plan and resource. In its submission, ATSE stated, citing overseas precedents:

A coherent pipeline of projects is required that allows industry to develop effective delivery plans and better workforce management, particularly in engineering. Defined planning horizons linked to medium-term budgets would support the development of appropriate project pipelines. Like governments in Canada and the United States, governments in Australia need to present 10 year budgets and estimates of their prospective infrastructure outlays. As part of its 2013 budget, the Canadian Government has committed to maintain funding for 10 years to the Building Canada Fund. Infrastructure outlays should be related to a minimum, fixed percentage of Gross Domestic Product or State Product.²⁴

22 Department of Infrastructure and Regional Development, *Submission 11*, p. 2.

23 Department of Infrastructure and Regional Development, *Submission 11*, p. 4.

24 Australian Academy of Technological Sciences and Engineering, *Submission 27*, p. [4].

- 2.21 Consult Australia believed that 'the most important thing is that we work towards the development of a long-term infrastructure plan'. The plan would 'exist across electoral cycles and provide businesses with the certainty that they need to plan and recruit for their businesses to deliver that pipeline'. Consult Australia argued that:
- To have projects change across governments at both a state and a federal level is hugely problematic when you are attempting to recruit the skills and plan a business to deliver those projects and bid for them, and that is the principal concern for our firms. So the longer the infrastructure planning time frames and the more certainty can be attached to that pipeline and the de-politicisation of the pipeline, the better our firms will be able to deliver it.²⁵
- 2.22 The Productivity Commission had a somewhat different view of what constituted an effective pipeline of projects – not so much a fixed schedule of selected and funded infrastructure developments as a range of potential projects which had been subjected to publicly available cost-benefit analysis from which private firms could establish potential opportunities for investment. In the Commission's view:
- ... the package of reforms advocated in this report should lead naturally to the disclosure of considerable information, such that public funders and private financiers would have a reasonable indication of the detailed analysis supporting future public infrastructure priorities. This would constitute an effective 'pipeline', with the capacity to naturally update itself.²⁶
- 2.23 The Commission indicated that 'governments could choose to regularly update and publish their list of priority projects'. The Commission noted that 'the Australian Government has asked Infrastructure Australia to publish a 15-year infrastructure audit plan [and as of November 2014, a 15-year infrastructure plan], which will add to the public information on proposals', but observed that this proposal did 'not deliver the pipeline that would be created by comprehensive publication across all governments of cost-benefit analyses on proposed public infrastructure projects'.²⁷
- 2.24 In its submission, Department of Infrastructure and Regional Development noted that 'the 15-year plan will include clearly defined service standards for project delivery', that would 'outline short and long
-

25 Mr Jonathan Cartledge, Consult Australia, *Committee Hansard*, 7 August 2014, p. 13.

26 Productivity Commission, *Public Infrastructure: Inquiry Report*, Volume 1, No. 71, 27 May 2014, p. 19.

27 Productivity Commission, *Public Infrastructure: Inquiry Report*, Volume 1, No. 71, 27 May 2014, pp. 19–20.

term productivity gains and identify any complementary projects required to maximise productivity gains'. The plan would also 'articulate a timeframe in which projects will be brought to market, commencing with those projects of highest productivity value'. The Department also stated that Infrastructure Australia would 'assess all projects across both economic and social infrastructure (excluding Defence projects) seeking Commonwealth funding of over \$100 million'.²⁸

- 2.25 It was suggested that the fifteen year timeframe for the infrastructure plan was not adequate, with Consult Australia indicating that a 30-year timeframe should be considered.²⁹ A longer term view of upcoming infrastructure projects would also allow increased certainty and continuity for businesses engaged in infrastructure planning and delivery.³⁰

Committee conclusions

- 2.26 The Committee believes that independent, rigorous and transparent processes are required in making decisions relating to the planning, assessment and delivery of public infrastructure. Transparent processes, supported by rigorous cost-benefit analysis, would allow for infrastructure to be prioritised independently of political decision-making processes. The onus would then fall on providers to fund, finance and deliver projects based on independently determined priorities. In terms of how planning, assessment and decision making is conducted, the Committee believes that all governments may wish to consider establishing independent agencies to advise on such matters, noting that models such as Infrastructure Australia and Infrastructure NSW already exist.
- 2.27 The Committee takes the view that a nationally consistent approach to infrastructure planning is important to promote efficiency and cost-effectiveness in the delivery of public infrastructure. It is important that all levels of Government across all jurisdictions work together to harmonise and streamline processes and regulations, and reduce duplication in approvals processes.
- 2.28 The Committee is of the view that a coordinated approach between governments to ensure consistency in the planning and delivery of

28 Department of Infrastructure and Regional Development, *Submission 11*, p. 3; see also Mr Rory Brennan, Infrastructure Australia, *Committee Hansard*, 4 June 2014, p. 2.

29 Mr Jonathan Cartledge, Consult Australia, *Committee Hansard*, 7 August 2014, p. 8

30 See for example: Mr John Alexander MP, *Committee Hansard*, 16 July 2014, p. 3; Engineers Australia, *Submission 1*, p. 3.

infrastructure is vital, particularly in regard to transport-related infrastructure such as roads, ports and freight. Such an approach will encourage a harmonisation of processes and improved regulatory compliance by stakeholders, particularly private sector entities seeking to engage in infrastructure planning and delivery. In the Committee's view, both the Australian Government and COAG should play a lead role in this regard.

- 2.29 The Committee notes that the Productivity Commission calls for greater coordination between jurisdictions, and also for individual jurisdictions to develop agreements with the Commonwealth to harmonise aspects of infrastructure planning and delivery in the absence of unified agreement between governments.

Recommendation 1

- 2.30 **The Committee recommends that the Australian Government, through COAG, facilitate greater coordination of infrastructure identification and planning between the Commonwealth, State, Territory and local governments, including harmonisation of planning regulations and processes, and reducing regulatory duplication between different levels of government.**
- 2.31 The Committee supports the concept of an infrastructure pipeline to promote planning certainty and allow the private sector to better align its capabilities and resources with public infrastructure requirements. The development of priority project lists, supported by cost-benefit analysis of projects, will enable the private sector to plan and finance its participation in infrastructure development with greater certainty, thereby maintaining essential capabilities and skills.
- 2.32 The Committee is pleased to see, and strongly supports, recent changes to the role of Infrastructure Australia to develop an audit of the current stock of critical infrastructure across Australia. In the Committee's view, such an audit is overdue and will be of significant assistance in the assessment of infrastructure requirements. The Committee notes that such an audit will be a major undertaking and require both coordination and collaboration across jurisdictions. While not promoting specific methodologies, the Committee does note that technologies do exist which could be of assistance to the development of this audit.³¹
- 2.33 The Committee is also pleased to see the development of a fifteen year Infrastructure Plan as a tool to guide future infrastructure planning. The

31 See for example: BCE Surveying, *Submission 24*, p. 4.

Committee believes that further consideration should be given to the Plan's fifteen year timeframe and whether it is adequate given the need to provide a longer-term outlook and support business confidence. The Committee supports comments by the Productivity Commission to include provision for cost-benefit analysis to supplement the Plan. It should be noted that the Committee will consider the issue of cost-benefit analysis as it relates to individual projects later in this report.

Recommendation 2

- 2.34 **The Committee recommends that the Australian Government continue to facilitate the development of a pipeline of public infrastructure projects, in conjunction with state and territory governments, to ensure long-term continuity of infrastructure investment and better promote the efficient and cost-effective use of resources by all stakeholders.**

Recommendation 3

- 2.35 **The Committee recommends that the Australian Government consider the adequacy of the fifteen year projection of the Infrastructure Plan to be developed and maintained by Infrastructure Australia taking into account the need for longer term forecasting of infrastructure decisions and the need for business certainty.**

The importance of national and regional strategies

- 2.36 In developing a collaborative approach to infrastructure delivery, a number of inquiry contributors emphasised the importance of having both national and regional strategies. At present, a range of strategies across both spectrums exist. For example, at a Commonwealth level, COAG has developed the National Ports Strategy which will be part of the broader National Land Freight Strategy that is currently under development.³² The National Ports Strategy, endorsed by COAG in July 2012 aims to 'improve productivity, promote better long-term planning around ports and bring a greater focus on performance to Australia's waterfronts'.³³

32 Council of Australian Governments, *Standing Council on Infrastructure and Transport*, (viewed 5 November 2014) Website: < https://www.coag.gov.au/infrastructure_and_transport>

33 Council of Australian Governments, *Standing Council on Infrastructure and Transport*, (viewed 5 November 2014) Website: < https://www.coag.gov.au/infrastructure_and_transport>

- 2.37 At a state or regional level, evidence to the Committee has suggested that consideration is being given to issues that affect specific geographies. For example the Northern Territory Government has highlighted a recent forum that aimed to develop a Remote and Regional Transport Strategy to improve transport services for communities around the Northern Territory.³⁴ Another example is Queensland's North Queensland Resources Supply Chain Steering Committee that aims to 'develop a strategy to improve the efficiency and productivity of the supply chain through better coordination of infrastructure stakeholders ...'³⁵
- 2.38 In terms of regional strategies, the NGAA suggests that:
- The ideal is for a regional approach where economic catchments or other sensible catchments are identified, that there is a plan that is prepared that has buy-in from all levels, that is strategic and that also identifies the sort of infrastructure that is needed to drive economic growth to also address social issues and environmental issues. There is then a mechanism whereby funding can come forward. In the UK deals model, there is some government funding. There is also private sector funding involved in it.³⁶
- 2.39 The NGAA further advised the Committee that:
- The identification of the infrastructure needs to link with the strategic approach for the area – that is in part local government plans, it is in part state government plans and it is also federal government in terms of some of the big ticket infrastructure.³⁷

United Kingdom City Deals

- 2.40 The Committee received a range of submissions highlighting the United Kingdom's City Deal system of infrastructure provision. The Property Council of Australia's submission to the inquiry describes the City Deals approach as an:
- ... innovative strategy for building stronger urban and regional growth via smarter strategic planning, infrastructure investment and local governance ...
- The core goal of UK City Deals is to direct infrastructure spending to projects that boost productivity, employment and economic growth.³⁸

34 Northern Territory Government, *Submission 15*, p. 5.

35 Queensland Government, *Submission 18*, p. 11.

36 Ms Ruth Spielman, National Growth Areas Alliance, *Committee Hansard*, 7 August 2014, p. 2.

37 Ms Ruth Spielman, National Growth Areas Alliance, *Committee Hansard*, 7 August 2014, p. 2.

38 Property Council of Australia, *Submission 22*, p. 14.

- 2.41 The Property Council suggests that the United Kingdom’s model represents:
- a new priority assessment paradigm that focuses on an **economic growth budget for a region** – a “local GDP” premium;
 - a **disciplined incentive system** similar to Australia’s successful National Competition Policy approach;
 - a **long-term infrastructure investment program** specifically designed to boost economic productivity within a coherent urban and regional policy framework;
 - a **local governance mechanism that fosters collaboration and accountability** – the mechanism also encourages a joined-up *mutually-reinforcing* package of public policy programs, as opposed to departmental budget silos and ad hoc “announceables”; and,
 - total **alignment** between the method for setting infrastructure priorities and the basis for determining success (and incentives).³⁹
- 2.42 The key feature of the United Kingdom’s model is that it ‘determines an economic growth budget for a designated region’, called Gross Value Added (a local GDP). Where a region exceeds its growth budget it receives a fiscal reward – ‘a share of the windfall tax arising from additional economic growth’. The model ‘explicitly targets a package of infrastructure projects that lift a region’s economic capacity over a long-term timeframe’.⁴⁰
- 2.43 The National Growth Areas Alliance believed the United Kingdom’s City Deals approach had promise:
- Its features are that it is focused on collaboration across an economic catchment or region; the infrastructure that will drive economic growth and other public policy goals is identified; the focus is on the package of projects across a region, not on individual projects; targets are agreed and, if exceeded, bonuses apply, much like our previous competition policy; and there is national government funding as a base and private sources are leveraged. This gets away from the more parochial vying for individual projects and is able to encompass both big-ticket infrastructure projects and smaller scale projects ...⁴¹
- 2.44 In its submission, the Bus Industry Confederation highlighted the success of the United Kingdom model in ‘better integrating strategic planning
-

39 Property Council of Australia, *Submission 22*, p. 4.

40 Property Council of Australia, *Submission 22*, p. 14.

41 Ms Ruth Spielman, National Growth Areas Alliance, *Committee Hansard*, 7 August 2014, p. 1.

processes and funding flows';⁴² while Consult Australia advocated a similar approach based on the United Kingdom City Deals initiative that would 'propose new financing mechanisms delivered through a better understanding of the value and breadth of productivity benefits that flow, not just from individual projects, but from packages of projects and initiatives'.⁴³ The Property Council of Australia believed that 'a similar approach to Australia would deliver a much-needed cohesive policy to the way our cities and regions are planned and provided for'.⁴⁴

- 2.45 The Committee does not intend to provide an analysis of whether the United Kingdom City Deals model would be applicable in the Australian context. It acknowledges, however, that the South East Queensland Council of Mayors in conjunction with both the Queensland Government and Property Council of Australia have commissioned an independent analysis to consider its adaptability within the Queensland Government's infrastructure delivery framework.⁴⁵ Whether such arrangements would be constitutionally valid under Australia's federal system of government, is a matter for the Australian, state and territory parliaments and subsequent interpretation by the High Court of Australia of relevant constitutional implications.

Preservation of land corridors for infrastructure

- 2.46 There is a need for a strategic approach to the acquisition, preservation and planning of land corridors so that they can best be utilised for future infrastructure needs. The complexity of the issue is highlighted by comments in the Productivity Commission's report, which states:

Delays in identifying and acquiring land to be set aside for future corridors has the potential to significantly increase the cost of the development and ongoing operation of infrastructure, which in turn, may distort project selection decisions. Failure to protect corridors or adequately reserve land can result in development encroaching on preferred routes, selection of sub-optimal routes or expensive alternatives (such as tunnels, which can be eight to ten times more expensive than comparable surface alternatives) ...⁴⁶

42 Bus Industry Confederation, *Submission 4*, p. 11.

43 Consult Australia, *Submission 2*, p. 4.

44 Ms Caryn Kakas, Property Council of Australia, *Committee Hansard*, 29 August 2014, p. 9.

45 South East Queensland Council of Mayors, *Submission 17*, p. [3].

46 Productivity Commission, *Public Infrastructure: Inquiry Report*, Volume 1, No. 71, 27 May 2014, p. 275.

- 2.47 The need for appropriate identification and reservation of land corridors was supported by a range of inquiry participants. The Australian Constructors Association stated that Governments should act 'to secure parcels or corridors of land to ensure that implementation costs are reduced' as part of a long term planning process. This would also have the benefit of allowing the community 'a clear understanding of the impact of development near areas identified for major projects'.⁴⁷ The Australian Logistics Council noted that the failure to protect transport corridors would lead to encroachment and ultimately sub-optimal or expensive alternatives. The Council believed that corridors should not merely be reserved, but that infrastructure plans should identify how these corridors will be funded.⁴⁸
- 2.48 Several State and Territory jurisdictions indicated planning strategies through which they identified and protected future infrastructure corridors.⁴⁹ The problem, according to the NGAA, was that:
- ... you might get a state government plan signalling in its documents that certain land is strategically important for future requirements but not always being able to go in a timely manner to the next step of committing, via a public acquisition overlay, to purchasing it down the track and then, following that, actually getting the infrastructure that was envisaged there. That can be decades. Land can be identified but without the next steps necessarily occurring.⁵⁰
- 2.49 The Department of Infrastructure and Regional Development advised the Committee that there are a number of impediments to land acquisition, including:
- conflict between the 'buy now' and 'buy later' arguments;
 - resistance to investing resources to protect long term strategic corridors well in advance of detailed investigations to demonstrate current need and/or refine the locations; and
 - difficulties in accurate strategic long term planning predicting growth, including the form that future infrastructure(s) might take, as well as which sectors might use a future corridor.⁵¹
- 2.50 The Victorian Government Department of Transport, Planning and Local Infrastructure's submission outlined the process that it uses for the

47 Australian Constructors Association, *Submission 16*, p. 4.

48 Australian Logistics Council, *Submission 6*, p. 6.

49 Northern Territory Government, *Submission 15*, p. 5; Victorian Government, *Submission 28*, p. 5; Australian Academy of Technological Sciences and Engineering, *Submission 27*, p. [4].

50 Ms Ruth Spielman, National Growth Areas Alliance, *Committee Hansard*, 7 August 2014, p. 4.

51 Department of Infrastructure and Regional Development, *Submission 11*, p. 7.

acquisition of land. This includes a statutory mechanism for the acquisition of land which includes the ability to control nearby development that may be in conflict with future planning purposes for which the particular land is reserved.⁵² A key point in the submission is that:

It is important to note that reservation of corridors, especially those for nationally significant infrastructure, can carry long term costs for Government. In many instances, these costs are contingent, and budgeting for uncertain financial requirements for ongoing corridor protection poses a major challenge when framing an annual budget.⁵³

- 2.51 The Committee notes the current Australian Government's commitment to the development of the Melbourne – Brisbane inland railway to serve the east coast freight market.⁵⁴ The Committee notes the views of some inquiry participants who have called for further planning to identify and protect appropriate land corridors for a future east coast high speed rail network.⁵⁵

Australia's future freight task

- 2.52 Australia's geography both domestically and in relative international terms means that the movement of goods is reliant on a well-integrated and adaptable freight network. Estimates have suggested that Australia's freight task (both inbound and outbound) is set to double by the year 2030.⁵⁶
- 2.53 The Department of Infrastructure and Regional Development's submission to the inquiry highlights the work of the Bureau of Infrastructure, Transport and Regional Economics which is currently mapping Australia's future freight task including likely routes and volume of freight.⁵⁷
- 2.54 COAG's Standing Council on Transport and Infrastructure oversees the National Land Freight Strategy. The Strategy is 'a partnership between the Commonwealth, State, Territory and local governments and industry to

52 Victorian Government, *Submission 28*, pp. 5–6.

53 Victorian Government, *Submission 28*, p. 6.

54 Department of Infrastructure and Regional Development, *Rail*, (viewed 5 November 2014) <<http://investment.infrastructure.gov.au/funding/projects/rail.aspx>>.

55 See for example: The Hon Mr Anthony Albanese MP, *Committee Hansard*, 1 October 2014, p. 3; Australasian Railway Association, *Submission 14*, p. 11; The Hon Tim Fischer AC, *Submission 31*.

56 Department of Infrastructure and Regional Development, *Submission 11*, p. 4.

57 Department of Infrastructure and Regional Development, *Submission 11*, p. 8.

deliver a streamlined, integrated and multimodal transport and logistics system, capable of efficiently moving freight throughout Australia'.⁵⁸

2.55 The Strategy's objective:

... is to improve the efficiency of freight movements across infrastructure networks, minimise the negative impacts associated with such freight movements and influence policy making relevant to the movement of freight. The Strategy's long term outcomes are to ensure:

- an efficient, productive and competitive national land freight system;
- a sustainable land freight system that responds to growth and change; and
- that policies affecting land freight are aligned and coherent across governments.⁵⁹

2.56 With respect to future freight requirements, the Department of Infrastructure and Regional Development stated that:

Reconciling land use planning and interface issues such as noise complaints, traffic congestion, and urban amenity immediately adjacent to freight intensive activities (major intermodal terminals, industrial zones or port precincts) and their adjoining infrastructure corridors has been identified by the freight industry, as being amongst the most significant future challenges in major metropolitan and developing regional centres. Such pressures will only intensify with predicted growth in urban development as well as the freight task, and therefore effectively protecting land for freight and reserving land for future transport corridors in general is essential to protecting economic growth.⁶⁰

2.57 The Australian Logistics Council sees merit in ensuring that freight corridors form an integral part of future land corridor planning. Its submission makes a number of salient points in this regard including that:

- high level planning documents for all governments for transport corridors should identify how preservation of land corridors designated for freight purposes will be funded;
- that there be intergovernmental agreement on planning processes for freight routes;

58 Council of Australian Governments, Standing Council on Transport and Infrastructure (2012) *National Land Freight Strategy: a place for freight*, p. 1.

59 Council of Australian Governments, Standing Council on Transport and Infrastructure (2012) *National Land Freight Strategy: a place for freight*, p. 1.

60 Department of Infrastructure and Regional Development, *Submission 11*, p. 5.

- that such routes be placed on the National Land Transport Network;
- that key criteria should be developed when identifying key freight routes; and
- that the National Corridor Protection Scheme be expedited.⁶¹

Committee conclusions

2.58 The Committee notes evidence that stresses the importance of the preservation of land corridors, particularly those dedicated to freight, for future infrastructure needs. When preserving land for future infrastructure use, consideration should be given to factors such as the proposed timeframes; relevant cost-benefit analysis; alternative or cheaper options for infrastructure provision; relevant future maintenance and safety considerations; and wider social and economic implications of the decision to preserve land at a particular time. Governments should also ensure that proposed corridors are included or in line with existing infrastructure plans and strategies such as the National Land Freight Strategy.

Recommendation 4

2.59 **The Committee recommends that the Australian Government via COAG pursue designation of land corridors for the development of significant infrastructure projects on the basis that these are integrated into the infrastructure planning process of relevant jurisdictions and are supplemented by a demonstration of future need.**

Skills and capabilities

2.60 The Productivity Commission noted in its Public Infrastructure report that skill shortages resulted in some cost increases, delays and projects not proceeding.⁶² While these skill shortages periodically affected a range of occupations related to infrastructure development, including technical operators and construction professionals, the main focus of the evidence presented to the Committee was skill deficits in public sector procurement and engineering. Procurement skills will be dealt with in Chapter 4, with

61 Australian Logistics Council, *Submission 6*, p. 3.

62 Productivity Commission, *Public Infrastructure: Inquiry Report*, Volume 1, No. 71, 27 May 2014, p. 34.

the recommendation that special procurement agencies be established in which public sector procurement expertise may be concentrated.

Engineering skills

- 2.61 One skillset in particular that has been highlighted to the Committee is engineering skills. In its submission, Consult Australia stated:
- Privatisation of public services since the 1990s has led to a loss of public sector engineering expertise, which has had a negative impact on the efficiency of public sector procurement. Importantly, the transfer of training responsibility from the public sector engineering-related agencies to private sector engineering providers has not been fully acknowledged by government, nor allowed for in procurement practices. This has led to an under-development of skills over the past two decades.⁶³
- 2.62 Engineers Australia also emphasised the loss of engineering skills in the public sector, noting that engineering skills within the public sector have been significantly down-sized over time,
- ... to the point where the public sector's ability to manage engineering contracts and capacity to adequately assess the engineering competencies of contractors and sub-contractors has been severely compromised.⁶⁴
- 2.63 The lack of public sector engineering skills and reliance on outsourcing posed risks to the public sector's planning and procurement capabilities because of:
- The inability to manage engineering contracts because contracting staff lacked the necessary technical expertise.
 - The inability of contract staff to adequately assess the engineering competencies of contractors and sub-contractors.⁶⁵
- 2.64 Engineers Australia did not believe the solution to this problem required 'full reversal of the process' of deskilling 'and the restoration of all former structures'. Rather, it argued that 'a combination of internal engineering competence and external resources could meet requirements'. Engineers Australia noted that 'the precise mix depends on the circumstances of individual agencies and the projects under consideration'.⁶⁶ A similar observation was made by the Productivity Commission.⁶⁷

63 Consult Australia, *Submission 2*, pp. 8-9.

64 Engineers Australia, *Submission 1*, p. 1.

65 Engineers Australia, *Submission 1*, p. 6.

66 Engineers Australia, *Submission 1*, p. 6.

67 Mr Peter Harris, Productivity Commission, *Committee Hansard*, 27 August 2014, pp. 4-5.

- 2.65 One factor in the loss of engineering skill was intermittency, the loss of employment opportunities for engineers during downturns in infrastructure procurement activity. Lack of continuity in employment was a major disincentive for engineers, and had the impact on infrastructure procurement of skilled engineers leaving the sector during downturns in activity then having to be replaced during upturns. Greater continuity of employment was seen as crucial in retaining engineering skills.⁶⁸
- 2.66 Another problem facing the engineering profession and their employers was consistency of standards. Fully competent engineers within Engineers Australia were recognised with chartered status, but there was no mechanism to verify that there are comparable standards prevailing among non-members. Engineers Australia favoured a national registration system for engineers,⁶⁹ 'administered by States and Territories, with registration criteria equivalent to Engineers Australia's stage 2 competencies'. Engineers Australia believes that such a system is necessary to:
- Establish a nationally consistent register of engineers who have demonstrated full competence against internationally benchmarked standards, who practice in line with, and are committed to a code of ethics and who actively maintain currency with engineering technologies and practices.
 - Reduce red tape; a consistent national registration scheme would replace fourteen inconsistent, partial registration schemes applying across States and Territories.
 - End restrictions in these existing schemes on mobility of engineers and the bureaucratic and financial barriers to engineers wishing to practice in more than one jurisdiction.
 - Fully assess the competence of migrant engineers who between 2006 and 2011 accounted for 71% of the increase in the supply of engineers.
 - Enable effective action to be taken against engineers who practice negligently or unethically as is the case in medicine and law.
 - Provide the framework for assessing the numbers of fully competent engineers in Australia, enabling more effective engineering work force planning and policy making.⁷⁰

68 Engineers Australia, *Submission 1*, pp. 8-9; Mr Andre Kaspura, Engineers Australia, *Committee Hansard*, 25 June 2014, p. 2.

69 Engineers Australia, *Submission 1*, p. 2.

70 Engineers Australia, *Submission 1*, pp. 7-8.

Committee conclusions

- 2.67 The Committee believes that maintaining strong planning and procurement skills within the public sector is critical to the effective and efficient provision of public infrastructure within Australia. The Committee acknowledges, however, that a balance must be struck between retaining skills in-house and procuring them from consultants in the private sector. A mixture of both is the optimum for retaining knowledge and skill while promoting innovation.
- 2.68 The need to attract and retain engineers skilled in the planning and operation of public infrastructure has been highlighted in the evidence presented to the Committee. Longer term planning horizons will assist in the retention of skilled engineers, as will opportunities to work within the public sector. Along these lines, the Committee notes the recommendations of the 2012 Senate Education, Employment and Workplace Relations References Committee report on the shortage of engineering and related employment skills. This report made a number of recommendations for promoting engineering employment, including creating senior technical engineering roles with the Australian Public Service; requiring advice from persons with specialist technical knowledge in the procurement of engineering infrastructure; and the development of a national registration scheme for engineers.⁷¹
- 2.69 The Committee believes that the development of a national registration scheme for technical operators, construction professionals and engineers should be a priority.

Recommendation 5

- 2.70 **The Committee recommends that the Australian Government, through COAG, pursue a national system for the registration of infrastructure-related professions including those in the construction and engineering sectors so as to provide recognition of qualifications across Australia to better promote the efficient and cost-effective development of infrastructure.**

71 Senate Education, Employment and Workplace Relations References Committee, *The Shortage of Engineering and Related Employment Skills*, Parliament of Australia, July 2012, pp. vii–viii.

Funding and financing

- 3.1 Consideration of innovative options to procure infrastructure funding and finance has been necessitated by pressures on government revenue and estimated future infrastructure deficits. The development of ‘alternative’ funding and financing models has the potential to grow the pool of available funds. In this regard, Infrastructure Australia told the Committee that the private sector is ‘very keen to get involved’ and that:

The only barrier to more private investment and involvement in infrastructure is for governments to open up projects to that investment. At the moment about 15 per cent of public infrastructure is opened up to private investment through the PPP stream. We would like to think that could be broadened.¹

- 3.2 Infrastructure in Australia is predominately funded either by public finance or direct user charges.² ‘Funding’ refers to how a project is paid for, while ‘financing’ refers to how debt or equity is raised to deliver and operate a project.³
- 3.3 The Productivity Commission’s report examined four funding mechanisms – user charges, value-capture approaches, developer contributions and government funding.⁴ The Commission concluded that direct user charges should be the norm for funding infrastructure. However, it was acknowledged that governments will have to continue to partly fund some roads, public transport and social infrastructure. In relation to sourcing government funding, the Commission argued that it

1 Mr Rory Brennan, Infrastructure Australia, *Committee Hansard*, 4 June 2014, p. 4.

2 Consult Australia, *Submission 2*, p. 2.

3 Industry Super Australia, *Submission 12*, pp. 4–5.

4 Productivity Commission, *Public Infrastructure: Inquiry Report*, Volume 1, No. 71, 27 May 2014, pp. 141–75.

should come from 'broad-based taxes on income, consumption or land because such taxes have lower efficiency costs'.⁵

- 3.4 While cautioning its limits, the Commission's report stressed the growing role of private sector involvement in financing public infrastructure. In general terms there are three main types of private sector finance – debt finance, equity finance and hybrid instruments.⁶ The Commission investigated some direct and indirect financing sources including public private partnerships (PPP), debt or equity finance, the bond market and superannuation funds.⁷ It then reviewed ways to enhance financing options including subsidising private finance, superannuation fund liquidity issues, distorted incentives in the procurement process and capital recycling.
- 3.5 While cognisant of the detailed work undertaken by the Productivity Commission, the Committee believes there is room to isolate and further explore some of the funding and financing options including private-public partnerships arrangements, user charges, inverted bidding, debt financing, bonds and asset recycling.

Public private partnerships

- 3.6 There are many PPP models and the contract-types range from 'design build', 'operate maintain', 'design build operate', 'build own operate transfer', 'lease own operate' and 'alliance'.⁸ As Industry Super Australia explained:

PPPs typically involve a partnership between the public and private sector where the private sector is contracted to design, build, operate and manage and, most importantly, finance new infrastructure or services and meet government obligations for a set period of time (typically 20 to 30 years). Included in the contract is the right to receive payments from the government and/or charge users of the facility a fee (a toll in the case of roads)

5 Productivity Commission, *Public Infrastructure: Inquiry Report*, Volume 1, No. 71, 27 May 2014, p. 141.

6 Productivity Commission, *Public Infrastructure: Inquiry Report*, Volume 1, No. 71, 27 May 2014, pp. 182-3

7 Productivity Commission, *Public Infrastructure: Inquiry Report*, Volume 1, No. 71, 27 May 2014, pp. 177-205.

8 Industry Super Australia, *Submission 12*, p. 7.

in order to recover the costs of construction, operation and maintenance.⁹

3.7 PPPs account for a small share of the total investment in Australian public infrastructure.¹⁰ In 2010, 65 per cent of infrastructure was government funded while PPPs accounted for only 5 per cent of the overall funding requirement.¹¹ According to the Victorian Government:

... PPPs represent an appropriate financing mechanism; however they do not provide a funding source for infrastructure projects. Except in circumstances where PPP projects are fully funded by user charges, for example toll roads, funding responsibility remains with government.¹²

3.8 The Chamber of Minerals and Energy of Western Australia (CME) outlined four 'hybrid models' to encourage PPPs – viability gap funding, minimum guarantees, existing revenue streams as a funding source and delaying demand risk transfer. The CME argued that these models could increase a project's viability, secure private finance and reduce the fiscal strain on governments.¹³

3.9 Industry Super Australia argued that, in a post-GFC environment, PPP models are not structured to attract long-term investors. It was posited that such 'deals' are 'characterised by steep upfront fees stripped out by the bid sponsors, presenting dubious value for residual equity players, and high levels of debt financing'.¹⁴

User charging

3.10 The Productivity Commission has argued that '[d]irect user charges (prices) should be the default option because they can provide an incentive for efficient provision and use of infrastructure'.¹⁵ There are many services, and associated infrastructure, that the community directly pay for, as Engineers Australia told the Committee:

9 Industry Super Australia, *Submission 12*, p. 6.

10 Industry Super Australia, *Submission 12*, p. 8.

11 Association of Mining and Exploration Companies, *Submission 10.2*, p. [1].

12 Victorian Government, *Submission 28*, p. 9.

13 Chamber of Minerals and Energy of Western Australia, *Submission 3*, p. 8.

14 Industry Super Australia, *Submission 12*, p. 21.

15 Productivity Commission, *Public Infrastructure: Inquiry Report*, Volume 1, No. 71, 27 May 2014, p. 141.

The user pays principle is out there in many infrastructure services. We pay electricity bills. We pay water bills. We pay sewerage bills. But the arrangements for user pays are often not commercial.¹⁶

- 3.11 Where a 'natural monopoly' occurs, the government can retain oversight of user charges. This currently occurs in the form of price monitoring and regulation, and access regimes.¹⁷ The aim is to ensure owners do not excessively inflate the price of a service, and in effect the measures act to keep prices contained and promote equitable access.
- 3.12 The commercial viability of the current user charges model was questioned by some submitters, particularly in light of the toll road failures of Sydney's Lane Cove and Cross City Tunnels and Brisbane's Airport Link.¹⁸ Industry Super Australia argued that the key impediment to levying charges that would deliver on investor return expectations has been governments' reluctance to make a strong case outlining the benefits of user charges. Intergenerational equity is posited as the primary benefit.¹⁹
- 3.13 Consult Australia also advocated for more informed public debate particularly with regard to road user charging. It argued that relying on fuel excise to fund roads was not sustainable, and that:
- Confusion in public debate about the difference between funding and financing limits governments' ability to make a persuasive case for a funding framework that supports an efficient equitable approach to user charging.²⁰
- 3.14 Consult Australia recommended the development of 'pilot schemes to support community engagement and understanding'.²¹ It was anticipated that these schemes would reflect the lessons learnt internationally and be promoted by industry.²²
- 3.15 The Productivity Commission proposed a detailed review of direct road user charging and recommended the establishment of 'pilot studies on how vehicle telematics could be used' to estimate charges for cars and
-

16 Mr Andre Kaspura, Engineers Australia, *Committee Hansard*, 25 June 2014, p. 5.

17 Productivity Commission, *Public Infrastructure: Inquiry Report*, Volume 1, No. 71, 27 May 2014, p. 143.

18 Business SA, *Submission 8*, p. [5].

19 Industry Super Australia, *Submission 12*, p. 17.

20 Consult Australia, *Submission 2*, p. 3.

21 Consult Australia, *Submission 2*, p. 3.

22 Consult Australia, *Submission 2*, pp. 3-4.

other light vehicles.²³ The Commission told the Committee that the technology was available to provide electronic pricing, based on distance and location charging, but 'that does not mean the system is going to be introduced, unless there is some other incentive'.²⁴

- 3.16 Furthermore the Commission acknowledged that many roads would never be capable of a user pays model and nor would it be socially advantageous for all roads to be funded in this way:

We are acknowledging that as a key point ... the whole of the pricing question for roads is going to be decided on a subset of roads in this country.²⁵

- 3.17 When commenting on the issue of electronic pricing for light vehicles, Engineers Australia argued that the Commission's recommendation was 'fairly radical' and 'might be a step too far for change in one go'.²⁶ However, it agreed that models need to be developed that move away from a reliance on fuel excise, particularly for heavy vehicles.²⁷

Inverted bid model

- 3.18 The superannuation industry has been investing in infrastructure for the last 20 years. The industry has argued that, with the right drivers in place, it has the capacity to markedly increase its involvement. Industry Super Australia told the Committee:

Based on existing asset allocations and underlying growth, Industry SuperFunds will be seeking opportunities to invest a further \$5 billion in new money into infrastructure over the next five years. A modest increase in infrastructure allocations by five percentage points would increase available new investment to \$15 billion over the next five years. With no shortage of interest from Industry SuperFunds in new infrastructure investment opportunities the key challenge is how to make it happen.²⁸

23 Vehicle telematics uses global navigation satellite systems and wireless communications to monitor road use.

24 Mr Peter Harris, Productivity Commission, *Committee Hansard*, 27 August 2014, p. 8.

25 Mr Peter Harris, Productivity Commission, *Committee Hansard*, 27 August 2014, p. 8.

26 Mr Andre Kaspura, Engineers Australia, *Committee Hansard*, 25 June 2014, p. 5.

27 Mr Andre Kaspura, Engineers Australia, *Committee Hansard*, 25 June 2014, p. 5.

28 Industry Super Australia, *Submission 12*, p. 17.

3.19 Industry Super Australia presented a proposal whereby the bid process is inverted.²⁹ Under the proposed inverted bid model, the government tenders initially for the long term owner-operator followed by a separate bid for construction, operation and maintenance, and residual finance (see Table 3.1). According to Industry Super Australia:

This effectively inverts the bid process relative to current PPP procurements that typically only see long term equity after an initial sell down by project sponsors.

The most effective models could involve the long term owner-operator bidding on their margin over the other project capital, operating and financing costs.

An inverted bid process would more effectively align the interest of all parties, significantly reduce fee leakage and deliver a better value for money outcome.³⁰

3.20 As mentioned, it is proposed that construction tenders would be part of separate contractual arrangements. The Committee queried whether the model biased the tendering process to favour the bidder with the highest construction tender.³¹ Similarly the Productivity Commission had reservations about the model's ability to generate a competitive selection process and provide 'the most robust owner-operators'.³² On reflection the Commission recommended a 'hybrid model' and concluded:

... that there may be merit in exploring a model that incorporates some elements of the inverted bid model into the existing procurement process.³³

29 Industry Super Australia, *Submission 12*, p. 25.

30 Industry Super Australia, *Submission 12.1*, p. 9.

31 The Hon Alannah MacTiernan MP, *Committee Hansard*, 3 September 2014, p. 3.

32 Productivity Commission, *Public Infrastructure: Inquiry Report*, Volume 1, No. 71, 27 May 2014, p. 251.

33 Productivity Commission, *Public Infrastructure: Inquiry Report*, Volume 1, No. 71, 27 May 2014, p. 255.

Table 3.1 Selected features of the current, inverted bid and hybrid models

	<i>Current process</i>	<i>Inverted bid model</i>	<i>Hybrid model</i>
Project sponsor	Open to all parties, but current arrangements may favour banks	Open to equity investors only	Open to all parties
Bid selection criteria	Varies, but no consistent focus on economic return	Expected IRR converted into an ex ante revenue equivalent	Expected unlevered IRR converted into an ex ante revenue equivalent
Bundling of project functions	Financing, design, construction and operations fully bundled in a consortium	All functions unbundled and separately tendered for	Debt financing unbundled from the bidding
Certainty on commercial terms and risk allocation	High — fully financed and highly specific bids	Low/Moderate — equity funding competition on a concept case before involvement of designers and constructors	Moderate — non-fully financed bids, but the consortium structure is largely retained
Financing structure	Left to consortia, but current arrangements may favour bank finance	Mandated level of long-term equity contribution	Left to the winning bidder
Competition effects	Bundling mutes competitive signals for individual parties to the consortium	Potential limitations from fixing equity sponsorship and participation levels at an early point; pro-competitive otherwise	Increased competition from unbundling debt financing primarily

Source *Productivity Commission, Public Infrastructure: Inquiry Report, Volume 1, No. 71, 27 May 2014, p. 258.*

3.21 The Committee received strong support for the design and implementation of flexible bid models to encourage the superannuation industry to invest its available liquidity and increase its involvement in infrastructure projects.³⁴ Business SA submitted:

... superannuation funds may be better placed as a long term owner rather developer of infrastructure, but there is too significant a pool of funds not to keep trying to engage the superannuation sector resolve their issues regarding risk allocation.

... State and Federal Governments must become smarter about how they engage the sector to provide models which suit the investment characteristics of a superannuation fund.³⁵

3.22 The Civil Contractors Federation (WA Branch) (CCFWA) supported the inverted bid model and argued that a more flexible bid model is necessary. Rather than being a negative, the CCF viewed delineations in the tendering process as potentially beneficial:

34 Australasian Railway Association, *Submission 14*, p. 6; Association of Mining and Exploration Companies, *Submission 10.2*, p. [3].

35 Business SA, *Submission 8*, p. [5].

The separation of the construction tender from financing means the most capable and best value contractors and lenders can be selected without compromise as each will not be tied to a particular consortium.³⁶

- 3.23 The CCFWA conceded that the model 'will necessarily involve more risk to government'. Further to this, however, it was argued that '[a]s the Productivity Commission pointed out, there is nothing wrong with governments taking on a bit more risk and becoming less risk averse'.³⁷

Debt financing and bonds

- 3.24 In the evidence presented to the Committee there was considerable discussion about the use of debt, particularly bonds, to finance public infrastructure. Consult Australia argued that the debate on the value of debt as a method of finance needed to be refocused, stating:

I think what we have seen is an unnecessarily politicised environment in terms of the approach taken to debt funding infrastructure by governments at all levels. I think the example given in our submission of some of the flak copped in Queensland for dropping their credit rating based on what was a very large infrastructure spend at the time was disappointing. I think while you want responsible fiscal management, absolutely, you need to be careful, our members would argue, that that does not come at the expense of long-term substantive investment in the infrastructure pipeline that will ultimately contribute to productivity at a local, state and national level. That is our concern – that the infrastructure deficit is so large that it is having a detrimental impact on long-term productivity. That is the issue that needs to be addressed.³⁸

- 3.25 Consult Australia urged a move away from 'the simplistic headline, that debt is bad and surplus is good':

The correct scrutiny of infrastructure projects in making a valid contribution to productivity is absolutely right – that is what we want to see – but perhaps that focus is a little out of whack in

36 Civil Contractors Federation (WA Branch), *Submission 25*, p. 7.

37 Mr Andy Graham, Civil Contractors Federation (WA Branch), *Committee Hansard*, 31 October 2014, p. 3.

38 Mr Jonathan Cartledge, Consult Australia, *Committee Hansard*, 7 August 2014, p. 12.

terms of the simplicity of that debt debate in general public discourse.³⁹

3.26 Infrastructure Partnerships Australia cautiously endorsed this position, noting that 'debt is an extremely appropriate way to be able to fund the intergenerational capital investment task, and it has always been thus'. Additionally it was noted that room needs to be 'found on the public sector's balance sheet to repay these things as finance leases over time', and allowance made for the 'ongoing creation of headroom' for future infrastructure tasks.⁴⁰

3.27 Infrastructure Partnerships Australia concluded that:

On the issue of debt, the previous speakers said that the AAA credit rating should be allowed to lapse in the face of a large capital program. I would potentially agree with that as a semi-sovereign state government level, but there are a hell of a lot of things that you would do first in terms of changing both the cost and increasing the quality of public service delivery before you would make a decision about a higher level of gearing and the attendant financing costs that would go with it.⁴¹

3.28 Much of the discussion around debt focussed on the issue of bonds as a form of stable long-term finance. In evidence before the Committee, the Productivity Commission highlighted the potential of bonds as a possible mechanism for funding public infrastructure. However, the Commission emphasised that it was not discussing government bonds, which were simply another class of government debt, but infrastructure specific bonds raised on the private capital market and priced around the risks inherent in a project. This would represent a third option between expensive equity and relatively cheap but comparatively shorter-term debt.⁴² The benefit of such bonds, according to Infrastructure Australia, was that they provided a more stable and secure form of debt funding compared to bank lending, which was subject to periodic renegotiation and movements in interest rates. Using bonds, bidders could 'put in very confidently their lowest bid, because they know that there is no risk of increased debt-financing cost part the way through the contract'.⁴³

39 Mr Jonathan Cartledge, Consult Australia, *Committee Hansard*, 7 August 2014, p. 12.

40 Mr Brendan Lyon, Infrastructure Partnerships Australia, *Committee Hansard*, 7 August 2014, pp. 17-18.

41 Mr Brendan Lyon, Infrastructure Partnerships Australia, *Committee Hansard*, 7 August 2014, p. 19.

42 Mr Peter Harris, Productivity Commission, *Committee Hansard*, 27 August 2014, p. 7.

43 Mr Rory Brennan, Infrastructure Australia, *Committee Hansard*, 4 June 2014, p. 6.

- 3.29 An impediment to this form of finance was the absence of a market for private infrastructure bonds in Australia, a fact acknowledged by the Productivity Commission⁴⁴ and highlighted by others. Infrastructure Australia noted the absence of an infrastructure bond market in Australia following the Global Financial Crisis of 2008, despite its recovery elsewhere, and suggested a range of solutions, including:
- ... asking bidders to put in bond-financed as well as bank-financed bids; and perhaps even going much further, in terms of the foundations of the market, to look at providing incentives for industry and private super funds to invest in bonds.⁴⁵
- 3.30 The Property Council of Australia saw 'a long-dated bond market as being by far the easiest, most straightforward way of funding infrastructure projects', but urged government to take the leading role in the creation of that market initially.⁴⁶ The Urban Development Institute of Australia sought the development of 'long-dated investment products that deliver guaranteed total returns that are more attractive than standard government bond rates', but argued that this would 'require credit-enhancement as generic infrastructure-related returns are not high enough to appeal to investors'. The Institute suggested the creation of an Urban Infrastructure Fund and proposed two techniques to promote the fund:
- a tax rebate of 10% for investors purchasing bonds that finance eligible projects within the Urban Infrastructure Fund pool
 - a capped government guarantee.⁴⁷
- 3.31 The Institute proposed that the Australian Office of Financial Management (AOFM) 'would manage bond issues on behalf of the Urban Infrastructure Fund' and 'liaise with financial market intermediaries'. The funds secured by capital raisings would be transferred to the Urban Infrastructure Fund. The AOFM 'would also pool and securitise bundles of prospective infrastructure asset income streams to ensure they are of sufficient scale to attract institutional investors'.⁴⁸
- 3.32 Alternatively, Industry Super Australia argued the virtues of equity over debt.⁴⁹ While acknowledging the 'capacity for the Australian Government to take on additional debt to fund infrastructure projects', Industry Super

44 Mr Peter Harris, Productivity Commission, *Committee Hansard*, 27 August 2014, pp. 7–8.

45 Mr Rory Brennan, Infrastructure Australia, *Committee Hansard*, 4 June 2014, pp. 6–7.

46 Mr Charles Thomas, Property Council of Australia, *Committee Hansard*, 29 August 2014, p. 10; Property Council of Australia, *Submission 22*, p. 8.

47 Urban Development Institute of Australia, *Submission 9*, Attachment 1, p. [2].

48 Urban Development Institute of Australia, *Submission 9*, Attachment 1, p. [3].

49 Mr Matthew Linden, Industry Super Australia, *Committee Hansard*, 3 September 2014, p. 4.

Australia saw no appetite in government for debt ‘given the current upward trajectory of government debt and commitment to return the budget to surplus and repay debt’; and suggested that if debt was to be incurred this should be by way of ‘issuing generic long dated government bonds (this is preferred to the issuance of infrastructure bonds as the greater liquidity in generic bonds offers lower funding costs)’. Industry Super Australia noted that:

In the debate around optimum debt levels, it must be acknowledged that even bonds that raise funds for a specific purpose – such as infrastructure bonds – are merely government debt by another name.⁵⁰

Capital recycling

3.33 Capital, or asset, recycling is promoted as an ‘alternative’ mechanism to fund and finance infrastructure.⁵¹ As the Productivity Commission explained:

... capital recycling involves government privatising mature assets and explicitly hypothecating the proceeds to the financing of new infrastructure projects (or into a dedicated infrastructure fund for a series of projects), which can in turn be privatised themselves once they become mature.⁵²

3.34 The Commission has explained that capital recycling involves two decisions (1) to privatise state-owned assets and (2) to invest in new infrastructure. Consequentially it is argued that ‘[t]he main risk from the capital recycling model is the potential for it to distort either of these decisions’.⁵³ Other risks associated with capital recycling included:

- that it may mute the incentives for governments to adequately consider the extent of ‘user charges’; and

50 Industry Super Australia, *Submission 12*, p. 17.

51 Productivity Commission, *Public Infrastructure: Inquiry Report*, Volume 1, No. 71, 27 May 2014, p. 259.

52 Productivity Commission, *Public Infrastructure: Inquiry Report*, Volume 1, No. 71, 27 May 2014, p. 258.

53 Productivity Commission, *Public Infrastructure: Inquiry Report*, Volume 1, No. 71, 27 May 2014, p. 262.

- it may cement the public view that the only time an asset should be privatised is when there is a new project in which to invest.⁵⁴

3.35 While industry was largely supportive of asset recycling to facilitate spending on new infrastructure, there was some contradictory evidence regarding the general public's endorsement of the policy.⁵⁵ Both Consult Australia and Industry Super Australia argued that with the right conditions, the privatisation of public infrastructure could receive 'broad public support'.⁵⁶ Industry Super Australia submitted:

Superannuation funds as buyers have the potential to cut through community concerns about private sector ownership and potentially change the game. Research commissioned by ISA and conducted by Newspoll shows 77.8 per cent would be more supportive of private investment if it involved super funds.⁵⁷

3.36 The Commonwealth Government is committed to facilitating asset recycling. In May 2014, the government introduced two bills to the House, the Asset Recycling Bill 2014 and the Asset Recycling Fund (Consequential Amendments) Bill 2014. The bills enable grants to the states and territories through the COAG Reform Fund; extend the Future Fund Board's duties to manage the Asset Recycling Fund (ARF); and allow for amounts to be transferred between the ARF and Future Fund.⁵⁸

3.37 On 30 October, the Prime Minister, the Hon Tony Abbott MP, told the House that every state and territory has signed to the National Partnership on Asset Recycling. Furthermore, the Prime Minister stated:

Asset recycling should reassure the taxpayers who paid for the assets in the first place that their investment is being preserved and their legacy built upon.⁵⁹

3.38 Consult Australia commended the Australian Government's moves to provide tax incentives to support assets sales by state and territory governments.⁶⁰ According to Consult Australia:

54 Productivity Commission, *Public Infrastructure: Inquiry Report*, Volume 1, No. 71, 27 May 2014, p. 262.

55 Australian Constructors Association, *Submission 16*, p. 5; Chamber of Minerals and Energy of Western Australia, *Submission 3*, p. 1.

56 Consult Australia, *Submission 2*, p. 3; Industry Super Australia, *Submission 12*, p. 18.

57 Industry Super Australia, *Submission 12*, p. 18.

58 Parliament of Australia, Bills and Legislation, (viewed 20 October 2014) <http://www.aph.gov.au/Parliamentary_Business/Bills_Legislation>

59 The Prime Minister, the Hon Tony Abbott MP, 'Ministerial Statements – Infrastructure', *House of Representatives Hansard*, 30 October 2014, p. 1.

60 Consult Australia, *Submission 2*, p. 3.

The creation of Restart NSW from funds hypothecated from the lease of Port Botany and Port Kembla is an important model that can be replicated across jurisdictions ... The subsequent model for capital recycling through the delivery of the Westconnex projects continues this principle which should be encouraged as governments access some of the more than \$100 billion sitting on their balance sheets.⁶¹

- 3.39 The Property Council of Australia were highly supportive of the government's Asset Recycling Fund and told the Committee:

We strongly endorse this concept as a way of alleviating the balance sheet impacts of infrastructure delivery. We believe the concept of offering federal incentive payments to promote asset recycling is sound. It provides the divestment decision to follow stringent cost-benefit analysis and that assets are not discounted at all as federal initiatives. We believe the fund provides a mechanism to alleviate the political tensions that plague the asset sales at all levels of government.⁶²

Committee conclusions

- 3.40 The Committee received evidence supporting PPP arrangements and promoting innovative financing mechanisms, such as increasing access to the liquidity in superannuation to fund greenfield projects and special purpose infrastructure bonds.⁶³ However, this support was caveated by the need to be mindful of recent failures, particularly associated with toll roads, and recognition that appropriate financing mechanisms need to be assessed on a case-by-case basis.⁶⁴
- 3.41 The Committee acknowledges that as finite public finances are further tested, governments will have to find, and promote, innovative and flexible models to fund and finance infrastructure. The continued development of mutually beneficial PPPs and enhancing the role of private equity partners will be a necessary development as industry and governments work towards ensuring Australia's infrastructure needs are met. The Committee does not believe there is a 'silver bullet' for

61 Consult Australia, *Submission 2*, p. 3.

62 Ms Caryn Kakas, Property Council of Australia, *Committee Hansard*, 29 August 2014, p. 8.

63 Association of Mining and Exploration Companies, *Submission 10*, p. 3.

64 Urban Development Institute of Australia, *Submission 9*, p. [2]; Department of Infrastructure and Regional Development, *Submission 11.1*, p. [1]; Business SA, *Submission 8*, p. [5].

infrastructure but does believe there is room to develop policy levers to maximise all available funds. The example of the Commonwealth Government's asset recycling program represents positive policy leadership in this regard.

- 3.42 In Chapter Four the Committee recommends that alternative procurement models be developed to assist the development of private investment in infrastructure. In addition to this, the Committee believes that the Australian Government has a role in leading public discussion on the relationship between infrastructure, what it costs and how it is funded. It is the Committee's view that a better understanding of this relationship would facilitate the development and public acceptance of alternative funding and financing models.

Recommendation 6

- 3.43 **The Committee recommends that the Australian Government, through Infrastructure Australia, develop innovative financing and funding models for the development of public infrastructure with a view to making the financing and funding of public infrastructure more flexible and responsive to the actual costs and risks in the delivery and operation of that infrastructure. Options to consider and further develop include:**

- **User charging,**
- **Inverted bidding,**
- **Promotion of infrastructure bonds, and**
- **Capital recycling.**

- 3.44 The issue of equitable access to services is a key driver for the continued involvement of governments, at all levels, to fund and finance certain infrastructure. As private investment increases in infrastructure projects which monopolise various services, it is vital that governments retain robust oversight via price monitoring and regulation, and access regimes. Thus, the Committee acknowledges that there will always be a vital role for government funding particularly in relation to infrastructure that serves the 'public good' and to which direct user charges are not applicable.

Procurement

- 4.1 Improving procurement processes is a key part of providing public infrastructure to Australians in an efficient and cost-effective manner. The evidence presented to the Committee highlighted serious deficiencies in procurement processes, especially around tendering processes, cost-benefit analysis, procurement skills and expertise and risk management. The Committee was, however, also presented with a range of potential solutions.

Tendering processes

- 4.2 Tendering processes have a significant bearing upon the outcome in public infrastructure development. In its report on public infrastructure, the Productivity Commission noted:

The way in which government clients procure Australia's public infrastructure can play an important role in determining its costs. What is done prior to the approach to market, the type of contracts let and consequent risk allocation between parties, along with the ability of governments to subsequently manage the project are all critical ingredients of the story.¹

- 4.3 The evidence presented to the Committee indicates that typical tendering processes for public infrastructure in Australia are slow, costly, do not always promote innovation, and tend to exclude significant potential sources of finance, such as superannuation funds. The most prevalent form of contract used in public infrastructure is the design and construct

1 Productivity Commission, *Public Infrastructure: Inquiry Report*, Volume 2, No. 71, 27 May 2014, p. 440.

model, where the client provides a project brief and contractors provide final designs and construction price.²

- 4.4 The Australasian Railway Association (ARA) highlighted some of the problems with the tendering process. A financial burden is placed on all bidders, not just the successful one, representing the expenditure of considerable resources before construction has even begun. Design costs alone comprise fifty per cent of tender costs, while tenders also routinely involve the submission of documentation relating to non-design issues, such as 'workplace relations management, health and safety management, project management, construction and earthworks'.³ The consequence of this, according to the ARA, was that tendering is becoming cost prohibitive to many potential bidders:

The complexity and costs of bidding for major projects, particularly PPPs, has become a major impediment to market entry in Australia. Few private companies, including superannuation funds have the financial capability to be involved in tender processes that require significant upfront investment, without guarantee of success.⁴

- 4.5 A number of proposals have been put forward to streamline the tendering process, making it less costly and less onerous to bidders. One suggestion is to streamline contract conditions, allowing bidders to recycle documentation in bids for projects with similar requirements. Another suggestion is to centralise key elements of bids – for example geotechnical surveys. A third is to shortlist bids, thereby releasing parties from the obligation of continuing with the tender process to its completion.⁵
- 4.6 Greater up-front investment by government in project design, or separate contracts for design and construct were seen as possible solutions to reducing bid costs. This was particularly useful to potential bidders such as superannuation funds who could apply their financial expertise and resources to a detailed concept.⁶ Others considered it less useful, citing the link between design and construction expertise and the possible stifling of innovation if the design parameters were too prescriptive. The Property Council of Australia stated:

2 Productivity Commission, *Public Infrastructure: Inquiry Report*, Volume 2, No. 71, 27 May 2014, pp. 443–4.

3 Australasian Railway Association, *Submission 14*, pp. 12–13; Ms Rhianne Jory, Australasian Railway Association, *Committee Hansard*, 18 June 2014, p. 1.

4 Australasian Railway Association, *Submission 14*, p. 6.

5 Ms Rhianne Jory, Australasian Railway Association, *Committee Hansard*, 18 June 2014, p. 5.

6 Ms Jane McGill, Industry Super Australia, *Committee Hansard*, 3 September 2014, p. 2.

The challenge is: do you allow the industry, be it infrastructure or the development industry, to do what it does best, which is to identify the parcel of land and your key outcomes – what type of housing and infrastructure you want and what your end goals are – give the high-level advice and allow for the design, work and innovation to take place. Or do you have the alternative, in which you are quite restrictive but you ensure that all the outcomes you want are there and you go through the tender process.⁷

- 4.7 The Property Council leant towards the first option, ‘because we think that if you are bringing in our sector ... having the opportunity to find ways to innovate and meet what you want to do in a way that is most cost-effective to business is always an ideal outcome’. The Property Council noted that ‘the natural basis of tendering is to be extraordinarily prescriptive to ensure that you are getting exactly the outcome that you want up-front’, but that this ‘often limits the imagination of what can be delivered and the opportunities for delivering more than what the base targets would be otherwise’.⁸
- 4.8 According to Consult Australia, the key was not so much the methodology of the tender process as its alignment to project requirements. That was where the skill in public infrastructure procurement lay:
- When you are looking at method selection, the most important thing to preserve is flexibility, and I think we need to recognise that, when you are dealing with infrastructure, you are dealing with a whole range of very different projects and they each need to be considered on their merits, and the methodology that is put in place to procure services to deliver those projects needs to be tailored to the project at hand.⁹
- 4.9 Misalignment between project and tendering methodology was often the result of a lack of expertise or capability in procurement.¹⁰
- 4.10 Other suggestions for streamlining tendering processes and reducing costs include the purchase of intellectual property rights for design concepts (or, alternatively, actually contributing to design costs in return for ownership of the designs) or paying bid costs. The Productivity Commission noted that such methods could potentially increase the numbers of tenderers and encourage innovation. The Commission noted that ‘these types of

7 Ms Caryn Kakas, Property Council of Australia, *Committee Hansard*, 29 August 2014, p. 11.

8 Ms Caryn Kakas, Property Council of Australia, *Committee Hansard*, 29 August 2014, p. 11.

9 Mr Jonathan Cartledge, Consult Australia, *Committee Hansard*, 7 August 2014, pp. 9–10.

10 Mr Jonathan Cartledge, Consult Australia, *Committee Hansard*, 7 August 2014, p. 10.

tendering arrangements have been used in recent infrastructure projects, which suggests issues surrounding ownership of intellectual property are not insurmountable'.¹¹ Consult Australia supported such 'innovative approaches to tendering ... to make sure that governments have the ability to select the best value for money outcome and to have the opportunity to consider the most innovative proposals that come to market'.¹² On the other hand, the Property Council expressed reservations about bidders surrendering intellectual property (IP) rights on their designs:

Obviously it is a huge risk because an enormous amount of money and IP go into these sorts of tenders, and a substantial amount of time. The loss of that is a challenge. I certainly think that if that is made clear at the outset then it allows them to know that if they are not successful that is the trade-off that may occur. That being up-front in the tendering process certainly allows people to enter the tender with open eyes as to what might happen to their IP.¹³

- 4.11 The Civil Contractors Federation (WA Branch) (CCFWA) supported the 'de-bundling' of infrastructure projects – separating projects into smaller packages for the purpose of procurement. This had the advantage of promoting competition between a greater range of contractors and reducing costs. The Federation noted that only a few suppliers had the capacity to bid for large and complex projects, 'which cannot be optimal for a client seeking value for money, or for the sustainability of the contracting market'.¹⁴ The Federation stated that:

The art of procurement is deciding which package size, which level of complexity, is right to be able to carve out particular parts of a project that require innovation but not wrap them up with parts of a project that are so basic and straightforward that they could be delivered under a construct-only contract.¹⁵

- 4.12 The Productivity Commission noted that de-bundling came at a cost, including the 'costs of multiple tender processes, project co-ordination and re-integration subsequent to completion'.¹⁶ Nonetheless, the Commission found that the better packaging of projects could potentially reduce

11 Productivity Commission, *Public Infrastructure: Inquiry Report*, Volume 2, No. 71, 27 May 2014, p. 459; Mr Peter Harris, Productivity Commission, *Committee Hansard*, 27 August 2014, pp. 9–10.

12 Mr Jonathan Cartledge, Consult Australia, *Committee Hansard*, 7 August 2014, p. 10.

13 Ms Caryn Kakas, Property Council of Australia, *Committee Hansard*, 29 August 2014, p. 11.

14 Civil Contractors Federation (WA Branch), *Submission 25*, p. 6.

15 Mr Jeff Miller, Civil Contractors Federation (WA Branch), *Committee Hansard*, 31 October 2014, p. 3.

16 Productivity Commission, *Public Infrastructure: Inquiry Report*, Volume 2, No. 71, 27 May 2014, p. 433.

overall complexity, allow greater competition, greater flexibility in procurement and better allocation of risk. The Commission recommended that:

For larger and more complex projects, government clients should pre-test the market to gain insights into possible savings from packaging the project into smaller components, reducing the level of risk borne by any one contractor, and promoting greater competition by relatively smaller construction companies.¹⁷

4.13 According to its proponents, Building Information Modelling (BIM) is a technical tool with the capacity to transform the tender process. Allowing three-dimensional modelling across the whole of life of a project, from design to decommissioning, BIM enables 'significant benefits, including improved information sharing, time and cost savings, improved quality, greater transparency in decision making', and 'allows any potential tenderer to put forward more accurate costings for infrastructure projects. This would allow for the least whole-of-life cost tender to be selected.'¹⁸

4.14 In its evidence, Autodesk used examples of infrastructure projects where BIM had been deployed to highlight the potential cost and time savings of the technology and its capacity to improve management and coordination of projects.¹⁹ Autodesk urged public sector leadership in the uptake of BIM, stating:

While private sector use of BIM offers significant benefits and costs reductions, it is only through a public procurer-led approach that these benefits and cost reductions will fully accrue to public funding. When there is only fragmented adoption in the market the benefits will likely be taken wholly by the private sector, potentially to the detriment of the cost of public infrastructure.²⁰

4.15 In its report, the Productivity Commission was slightly more circumspect in its evaluation of BIM, acknowledging its benefits, but also its limitations. The Commission stated:

BIM has most potential for complex construction projects that have a number of different design elements. Its usefulness and potential cost savings may be limited in the delivery of smaller less complex infrastructure projects (such as those related to road repair or upgrade). Mandating BIM for all government contracts may

17 Productivity Commission, *Public Infrastructure: Inquiry Report*, Volume 2, No. 71, 27 May 2014, p. 478; Mr Paul Lindwall, Productivity Commission, *Committee Hansard*, 27 August 2014, p. 10.

18 Australasian Railway Association, *Submission 14*, p. 6; see also Mr Roger Somerville, Autodesk, *Committee Hansard*, 31 October 2014, pp. 6-7.

19 Mr Andrew Hill, Autodesk, *Committee Hansard*, 31 October 2014, pp. 8-9.

20 Autodesk, *Submission 26*, p. [1].

therefore impose a number of unnecessary costs on industry and governments.²¹

- 4.16 The Commission suggested that 'releasing concept designs in BIM format would encourage the rapid adoption of the technology by industry, potentially generating savings in both bid costs and overall construction costs',²² and recommended that:

For complex infrastructure projects, government clients should provide concept designs using Building Information Modelling (BIM) to help lower bid costs, and require tender designs to be submitted using BIM to reduce overall costs. To facilitate the consistent use of BIM by public sector procurers, Australian, State and Territory Governments should:

- facilitate the development of a common set of standards and protocols in close consultation with industry, including private sector bodies that undertake similar types of procurement
- include in their procurement guidelines detailed advice to agencies on the efficient use of BIM.²³

- 4.17 A final tendering option raised with the Committee was the inverted bid model (for more detail, see Chapter 3). The perceived advantages of inverted bidding are that it 'makes it possible for superannuation funds to participate as greenfield investors right up-front at the start of a project' and 'assures that the project is managed efficiently over its lifetime':²⁴

When you contrast that with the current bid model, after the deal has been structured and the tens of millions of dollars of fees have been taken, the investor no longer has any responsibility for the project. That is what happened with a lot of toll road projects. By the time they realised that the forecasts were overly optimistic, the investment bank and the construction company were long gone, and the people who carried the can were secondary equity investors and mum and dad investors. People felt that infrastructure should be a safe investment, and it just turned out not to be because of this lack of accountability by investors.²⁵

21 Productivity Commission, *Public Infrastructure: Inquiry Report*, Volume 2, No. 71, 27 May 2014, p. 469.

22 Productivity Commission, *Public Infrastructure: Inquiry Report*, Volume 2, No. 71, 27 May 2014, p. 470.

23 Productivity Commission, *Public Infrastructure: Inquiry Report*, Volume 2, No. 71, 27 May 2014, p. 470.

24 Ms Jane McGill, Industry Super Australia, *Committee Hansard*, 3 September 2014, p. 1.

25 Ms Jane McGill, Industry Super Australia, *Committee Hansard*, 3 September 2014, pp. 2-3.

- 4.18 The Productivity Commission had ‘some reservations about the framework relating to probity, competition in procurement and clarity of risk sharing between governments and private providers’ within the inverted bid model. The Commission considered ‘that a hybrid model based on the existing bidding framework and elements of the inverted bid could be worth trialling’.²⁶ (See Chapter 3).

Cost-benefit analysis

- 4.19 Cost-benefit analysis is a mechanism for providing a logical and consistent consideration of all costs and benefits associated with a project. Cost-benefit analysis estimates the net benefit of a project by valuing the benefits according to the willingness of individuals to pay for them and costs according to the best alternative forgone (opportunity cost). The net benefit is calculated by subtracting the total costs from the total benefits. Cost-benefit analysis can be used to determine whether a community will be better off overall compared to a ‘no-project’ scenario, or be used to determine the relative benefits of different project options.²⁷ The cost-benefit is typically expressed as a ratio of costs to benefits, with a ratio above one showing positive net benefits. In its report, the Productivity Commission noted that:

The standard decision rule is that projects with positive net benefits should be accepted. However, where there are mutually exclusive projects, the one with the highest net benefits should normally be preferred.²⁸

- 4.20 The Commission also noted, however, that ‘because there is always some uncertainty about the inputs to the analysis, a project with a benefit-cost ratio slightly above one cannot definitively be said to be in the community’s interests’.²⁹
- 4.21 In establishing a reliable guide to what is in the overall interest of a community, the cost-benefit analysis of a project needs to take into account all relevant economic, social and environmental outcomes.

26 Productivity Commission, *Public Infrastructure: Inquiry Report*, Volume 1, No. 71, 27 May 2014, pp. 16–17, 250–8.

27 Productivity Commission, *Public Infrastructure: Inquiry Report*, Volume 2, No. 71, 27 May 2014, p. 677.

28 Productivity Commission, *Public Infrastructure: Inquiry Report*, Volume 1, No. 71, 27 May 2014, p. 93.

29 Productivity Commission, *Public Infrastructure: Inquiry Report*, Volume 1, No. 71, 27 May 2014, p. 93.

Moreover, a project must be judged not only on construction costs but also on long-term maintenance and operating costs.³⁰

- 4.22 The importance of cost-benefit analysis in promoting rigour and transparency in decision making was highlighted in the evidence presented to the Committee.³¹ However, attention was also drawn to the limits of cost-benefit analysis in assessing infrastructure projects. Infrastructure Partnerships Australia observed that:

While benefit-cost ratios, even direct benefit-cost ratios, are increasingly being applied as some sort of pass-fail test for infrastructure projects, that extends well beyond their proper use. It is suggesting a degree of sophistication from a powerful but not that sophisticated assessment tool. A good example would be the Pacific Highway corridor. If you applied a direct benefit-cost to the sections, even Clybucca, which is underway at the moment, you would find that those individual sections of the road that have not yet been duplicated would fail the cost-benefit test. They would be well below 1. But, if you look across the corridor ... there is a real benefit to having a safe dual carriageway connection between two of your most economically significant capital cities.³²

- 4.23 Infrastructure Partnerships Australia urged a focus on wider economic benefits as a means of assessing the utility of public infrastructure:

We have to be more realistic around what the assessment tools are telling us. There has been a very simplistic focus on whether it is a pass/fail and that creates the incentive to get the high-pressure hose onto the business case to get it up above one. It has really set up what is a good diagnostic tool. It should be part of a dashboard of measures that you are looking at, including wider economic benefits and wider social benefits. I should add, on wider economic benefits, it is also important that you include wider economic costs, which sometimes are left off when people are trying to get past the pass/fail test. We have a real opportunity. If we take some of the raw emotion out of these things, if we step back and make them good statistical exercises that are looking at how the project performed both in delivery and in operation then we will start to set up the evidence base we need for a much better

30 Productivity Commission, *Public Infrastructure: Inquiry Report*, Volume 1, No. 71, 27 May 2014, pp. 93–4.

31 Mr Peter Harris, Productivity Commission, *Committee Hansard*, 27 August 2014, p. 4.

32 Mr Brendan Lyon, Infrastructure Partnerships Australia, *Committee Hansard*, 7 August 2014, p. 19.

and much more sophisticated allocation of limited capital funding capacity towards infrastructure.³³

- 4.24 Consult Australia also urged a broader form of cost-benefit analysis in assessing infrastructure projects, stating:

Critical in assessing the merits of public investment in infrastructure is the application of broad cost-benefit analysis. Increasingly infrastructure projects are assessed individually, over relatively short time-frames and viewed as 'ready to proceed' only where utilisation is close to capacity. The benefits of a longer-term view of infrastructure investment, and governments' vital role in facilitating those longer-term benefits as part of a vision for our cities and regions, needs to be re-established.³⁴

- 4.25 Consult Australia considered the wider economic benefits model of assessment as superior to cost-benefit analysis. It highlighted the example of London's Crossrail project, where analysis of wider economic benefits had been used to quantify the impact of people moving to more productive jobs, the effects of agglomeration (decrease in the effective economic distance between areas), and increased labour force participation through improved transport options.³⁵ Crossrail's wider impacts were estimated at between £6bn and £18bn in welfare terms, including increased tax receipts, exceeding the initial public sector funding required for the project. Including wider economic benefits increased estimates of the benefit-cost ratio from 1.87 to between 2.73 and 3.05. The wider impacts were estimated as an increase in GDP of up to £42bn in 2002 prices, or £50bn in 2010 prices.³⁶

- 4.26 The Productivity Commission was more cautious in its assessments of the wider economic benefits model, stating that 'in principle, genuine wider economic benefits should be taken into account in assessing the merits of projects', but that study of wider economic benefits was 'in its infancy'. The result was that 'the inclusion of wider economic benefits in cost-benefit analyses has the potential to show one project to be superior to another purely because of differences in the way such benefits are defined and estimated'.³⁷

33 Mr Brendan Lyon, *Infrastructure Partnerships Australia, Committee Hansard*, 7 August 2014, p. 19.

34 Consult Australia, *Submission 2*, p. 5.

35 Consult Australia, *Submission 2*, p. 5; Consult Australia, *Submission 2.1*, p. [1].

36 Consult Australia, *Submission 2.1*, p. [1]; Crossrail Business Case—Summary Report, July 2010, *Exhibit 22*, p. 13.

37 Productivity Commission, *Public Infrastructure: Inquiry Report*, Volume 1, No. 71, 27 May 2014, p. 103.

Benchmarking

- 4.27 Benchmarking is an important tool in the procurement of public infrastructure. It involves the collection of data to formulate quantitative and qualitative indicators that enable comparison of economic performance and approaches to policy between projects and across jurisdictions. Benchmarking promotes accountability and can lead to increased efficiency and effectiveness in infrastructure procurement by exposing areas where improvement is needed, identifying targets for improvement and encouraging innovation.³⁸
- 4.28 Engineers Australia noted that 'benchmarking infrastructure costs contributes to planning and project evaluation in public sector agencies and in infrastructure construction businesses'. In addition, the provision of benchmarking data was 'particularly valuable for smaller organisations, whether public or private sector, who may not have the resource base to undertake the necessary level of research'. Access to data would 'improve the competitiveness of procurement by involving more players in the process'.³⁹
- 4.29 The Australian Trucking Association (ATA) also advocated benchmarking, stating in its submission that comparing road costs at each level of government 'to established benchmark costs and the associated level of guaranteed access with the investment would vastly improve the accountability of road agency spending'. The ATA supported the view that:
- ... the provision of data to support the benchmarking framework should be a requirement attached to all Australian Government funding for major infrastructure projects, and that ongoing benchmarking must be seen to be independent of both government and industry influence. Benchmarking must also be technically robust and credible.⁴⁰
- 4.30 The use of benchmarking has been linked to improvements in productivity in infrastructure procurement. The Productivity Commission stated that 'one of the major drivers of long-run construction costs in infrastructure is the achievement of productivity gains'. It noted that 'it is important to understand Australia's performance in this area, and to assess the factors contributing to it'. The Commission therefore recommended that the Australian Government introduce 'a detailed
-

38 Productivity Commission, *Public Infrastructure: Inquiry Report*, Volume 2, No. 71, 27 May 2014, p. 371.

39 Engineers Australia, *Submission 1*, pp. 5–6.

40 Australian Trucking Association, *Submission 5*, p. 5.

benchmarking framework', with Infrastructure Australia overseeing 'public reporting of benchmarking results across Australia for major infrastructure construction projects covering transport, energy, water and social infrastructure'. The provision of data by state and territory governments would 'be a requirement for all projects where the Australian Government provides funding'. The Commission noted that:

State and Territory Governments will have an important role to play in, and be primary beneficiaries of, such benchmarking. It will improve the information base for their infrastructure tendering, and significantly improve ex post evaluation.⁴¹

Special procurement agencies

- 4.31 In its report, the Productivity Commission stated that 'the establishment of specialised agencies to procure and manage the delivery of infrastructure projects provides one means to overcome concerns over a lack of public sector procurement and project management skills'.⁴²
- 4.32 The evidence presented to the Committee highlighted the need to create and retain specialist procurement skills in the public sector. Consult Australia observed that 'the procurement skills of the client have a large bearing on the success of the project', and that 'a consequence of government outsourcing has been an ongoing critical shortage of staff with skills in procurement at all levels of government'. This had impacted on the quality of infrastructure procurement and the cost of outcomes in the past.⁴³
- 4.33 Consult Australia suggested the 'creation of a Centre for Procurement Excellence as a possible solution to this issue',⁴⁴ possibly by expanding the role of the Australasian Procurement and Construction Council. 'It may well be that establishing such a centre could simply be an expansion of that organisation.'⁴⁵
- 4.34 An alternative would be to enhance the role of Infrastructure Australia in 'providing independent oversight and advice in infrastructure

41 Productivity Commission, *Public Infrastructure: Inquiry Report*, Volume 1, No. 71, 27 May 2014, pp. 24-5; Volume 2, No. 71, 27 May 2014, pp. 382-3.

42 Productivity Commission, *Public Infrastructure: Inquiry Report*, Volume 2, No. 71, 27 May 2014, p. 490.

43 Consult Australia, *Submission 2*, p. 7.

44 Consult Australia, *Submission 2*, p. 7; see also Australian Sustainable Built Environment Council, *Submission 13*, p. 2.

45 Mr Robin Schuck, Consult Australia, *Committee Hansard*, 7 August 2014, p. 12.

provision'.⁴⁶ This was supported by Infrastructure Partnerships Australia, who suggested that part of Infrastructure Australia's remit could be to focus on process design:

... deciding what proper processes are to go through, what are appropriate assumptions to go into these things, and then either incentivise or require projects that win federal funding support to go through a process of ex post assessments.⁴⁷

- 4.35 The Property Council of Australia supported Infrastructure Australia taking on a funding and finance advisory role, producing 'a comprehensive and regularly updated "menu" of funding and financing options for governments and infrastructure proponents'.⁴⁸

Managing risk

- 4.36 Risk is the uncertain but quantifiable consequence of an activity. Within infrastructure planning and procurement, it may relate to design and construction, operation, or the financial, political and regulatory environments.⁴⁹ Risk management involves the effective pricing and allocation of risk between parties. In the provision of public infrastructure, risk may be borne by government, the private sector providers or by third parties (contractors, insurance companies or end-users).⁵⁰ In practice, less than optimum allocation of risk can be caused by the failure of parties to properly assess risk, shifting of risks to parties not best able to manage them, and implicit or explicit government guarantees which distort risk management incentives.⁵¹

- 4.37 The evidence presented to the Committee highlighted the perils of poor risk management. Consult Australia noted that:

Improper risk allocation is a major driver of increased costs in the provision of public infrastructure. It is common practice for public sector agencies to offer contracts where all risk is transferred to other parties irrespective of who is best able to manage that risk.

46 Australian Trucking Association, *Submission 5*, p. 7.

47 Mr Brendan Lyon, Infrastructure Partnerships Australia, *Committee Hansard*, 7 August 2014, p. 19.

48 Property Council of Australia, *Submission 22*, p. 13.

49 Productivity Commission, *Public Infrastructure: Inquiry Report*, Volume 1, No. 71, 27 May 2014, p. 123.

50 Productivity Commission, *Public Infrastructure: Inquiry Report*, Volume 1, No. 71, 27 May 2014, p. 124.

51 Productivity Commission, *Public Infrastructure: Inquiry Report*, Volume 1, No. 71, 27 May 2014, p. 132.

Because these contracts are offered on a 'take it or leave it' basis, there is seldom opportunity for service providers to negotiate appropriate risk allocation. While at face value that might seem a prudent move on behalf of taxpayers, it actually leads to greater risk and increases the cost of work for a number of reasons.⁵²

4.38 Governments simply shifting risk to the private sector can place builders and operators of public infrastructure, or their contractors, at risk of insolvency if the commercial risks they undertake exceed their capacity to manage them.⁵³ This in turn creates the possibility that government will be required to meet the cost of commercial failure regardless of the contractual apportioning of risk.⁵⁴

4.39 Alternatively, government accepting the principal risk in project management leads to a loss of commercial discipline. Devolving risk to the private sector improves public infrastructure outcomes:

Demonstrably, the benefit that you have had from private involvement in public infrastructure markets has been around the commercial disciplines, around exposing private investors to the risks in the delivery of those projects, where you can get cost certainty into the capital cost delivery and get very significant innovation into the design and operation and the recurrent operating costs.⁵⁵

4.40 The consensus in the evidence was that the best way to manage risk was collaboratively. Infrastructure Partnerships Australia stated that 'government's approach to procurement should be to apportion risk efficiently, not to take it back';⁵⁶ while Industry Super Australia argued that there were cases where it was appropriate for risks and costs 'to be shared between the two parties'.⁵⁷ Consult Australia stated:

When risks were properly evaluated, allocated between the parties and better managed, a more collaborative approach was taken as each party had an interest in seeing the risks properly dealt with. This in turn led to better project outcomes, including better and

52 Consult Australia, *Submission 2*, p. 7.

53 Mr Jonathan Cartledge, Consult Australia, *Committee Hansard*, 7 August 2014, p. 8; Mr Robin Schuck, Consult Australia, *Committee Hansard*, 7 August 2014, pp. 10-11.

54 Industry Super Australia, *Submission 12*, p. 26.

55 Mr Brendan Lyon, Infrastructure Partnerships Australia, *Committee Hansard*, 7 August 2014, p. 22.

56 Mr Brendan Lyon, Infrastructure Partnerships Australia, *Committee Hansard*, 7 August 2014, p. 22.

57 Industry Super Australia, *Submission 12*, p. 26

more efficient delivery of the deliverables, including reduced cost, time and disputation.⁵⁸

- 4.41 Alliancing has been proposed as one mechanism for allocating risk. An alliance is an agreement between the parties to a contract to share the benefits or costs associated with project risks. The parties agree to a benchmark price, time and service level. Any benefits or costs are shared between the parties according to an agreed formula.⁵⁹ The benefits of alliances were seen as a 'collaborative approach to the contract' and a 'greater awareness of shared risk across the project', with risk apportioned to the parties best placed to manage the risk. It avoids an 'adversarial approach that tries to shift risk to different parties'.⁶⁰ The problem was a tendency for governments to bundle contracts, making them accessible to larger enterprises only, and the transfer of risk from government to the alliance partners.⁶¹ It was acknowledged that alliancing was not relevant to all situations, but was appropriate on large-scale time critical projects where not all risk factors could be calculated from the start.⁶²
- 4.42 Inverted bidding was also seen as a useful tool in risk management. Industry Super Australia argued that 'early participation from long-term equity investors will lead to a better pricing of risk'; and that the inverted bid model is quite flexible in terms of how it deals with patronage and construction risk', leading to more robust outcomes in terms of infrastructure procurement.⁶³

Committee conclusions

- 4.43 The Committee is of the view that public sector procurement practices are not always serving the taxpayer well and need to be more efficient, cost-effective and flexible. The Committee has been presented with a range of possible improvements to current tendering practices which are both practical and innovative, and which could form the basis of procurement practices which are robust and flexible. The Committee noted the potential for governments to take a greater role in promoting design innovation, either by co-funding the design elements of bids or the purchase of

58 Consult Australia, *Submission 2*, p. 8.

59 Industry Super Australia, *Submission 12*, p. 7.

60 Mr Jonathan Cartledge, Consult Australia, *Committee Hansard*, 7 August 2014, p. 11.

61 Mr Jeff Miller, Civil Contractors Federation (WA Branch), *Committee Hansard*, 31 October 2014, p. 3.

62 Mr Robin Schuck, Consult Australia, *Committee Hansard*, 7 August 2014, p. 11.

63 Mr Matthew Linden, Industry Super Australia, *Committee Hansard*, 3 September 2014, p. 7.

intellectual property in bidding processes, the development of Building Information Modelling and some form of inverted bidding process. The application of such concepts in a fit-for-purpose way will save significant amounts of money and result in better design, construction and operational outcomes.

Recommendation 7

4.44 The Committee recommends that the Australian Government propose to Infrastructure Australia that it develop innovative procurement practices for the tendering of public infrastructure with a view to making tender processes, more efficient, cost effective and flexible. Some of the options that should be considered include:

- **3D imaging of infrastructure and the need for regulation of the technology to be used;**
- **Promoting the use of Building Information Modelling;**
- **Co-funding design or purchase of intellectual property rights;**
- **The development of inverted bidding tender processes;**
- **Streamlining of tender processes and documentation;**
- **De-bundling projects;**
- **Centralising common elements of bids to make them more cost-effective; and**
- **Shortlisting of favoured tenders.**

4.45 The Committee supports the need for rigorous and transparent analysis of the costs and benefits of infrastructure projects. This is the only means by which the public and participants in infrastructure projects can be assured of the economic, social and environmental merits of public infrastructure. The Committee notes that under the provisions of the Infrastructure Australia Amendment (Cost Benefit Analysis and Other Measures) Bill 2014, Infrastructure Australia must undertake evaluations of infrastructure proposals that involve Commonwealth funding of at least \$100 million and provide that a proposal must not be included in an Infrastructure Priority List unless a cost benefit analysis has been prepared in accordance with the approved method.⁶⁴

4.46 However, the Committee is also of the view that there is merit in exploring the wider economic benefits of infrastructure projects to ensure that projects are not being evaluated in isolation from the broader costs and benefits they may bring. Infrastructure projects must also be considered in

⁶⁴ Infrastructure Australia Amendment (Cost Benefit Analysis and Other Measures) Bill 2014.

terms of the value they create elsewhere and their capacity to transform the economy.

Recommendation 8

- 4.47 **The Committee recommends that the Australian Government propose to Infrastructure Australia that it develop a methodology for evaluating the wider economic benefits of infrastructure projects with a view to applying this methodology to all major public infrastructure projects involving Commonwealth capital expenditure of more than \$100 million.**
- 4.48 The Committee supports the idea of a single agency providing direction and support for public infrastructure procurement. Focussing engineering, legal and financial expertise in a single agency able to provide high-level policy advice and direct support to agencies undertaking infrastructure procurement will ensure that government agencies will have access to relevant expertise at all stages of the procurement process.
- 4.49 The Committee believes this concentration of expertise best resides with Infrastructure Australia, as the Commonwealth's lead agency in public infrastructure assessment. The Committee also supports the recommendation of the Productivity Commission that Infrastructure Australia have responsibility for benchmarking infrastructure procurement in nationally.

Recommendation 9

- 4.50 **The Committee recommends that the Australian Government legislate to enhance the role of Infrastructure Australia as a specialist interdisciplinary procurement agency, with the capacity to provide high-level policy advice and direct support to government agencies undertaking infrastructure procurement, including development of best practice policies in finance, funding and procurement and benchmarking infrastructure procurement.**
- 4.51 The Committee is of the view that governments need to develop better strategies for risk management in the procurement of public infrastructure. The costs associated with poor definition and allocation of risk are sufficient to warrant a more collaborative approach between government and the private sector in apportioning risk, ensuring that risks are allocated appropriately in terms of ensuring commercial discipline and proportionately in terms of matching risk to capacity.

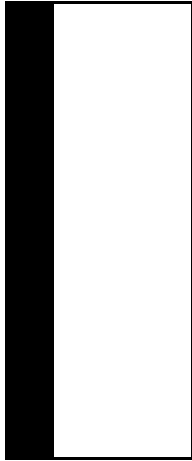
Recommendation 10

- 4.52 **The Committee recommends that the Australian Government, through COAG, work with state and territory governments to develop better risk management strategies in infrastructure procurement, with a focus on greater collaboration between government and the private sector in the identification and allocation of risk in the design, construction and management of public infrastructure.**

Mrs Jane Prentice MP

Chairman

1 December 2014



Labor Members' Dissenting Report

Deputy Chair, the Hon Matt Thistlethwaite MP; Mr Andrew Giles MP; Hon Mr Ed Husic MP; Hon Alannah MacTiernan MP, Ms Michelle Rowland MP.

Introduction

The Labor Members of the House of Representatives Standing Committee on Infrastructure & Communications (the committee) Deputy Chair, the Hon Matt Thistlethwaite MP; Andrew Giles MP; the Hon Ed Husic MP; the Hon Alannah MacTiernan MP; and Ms Michelle Rowland MP and wish to acknowledge the good work of the Committee and the Secretariat.

Throughout the course of this inquiry, the Committee having heard from many stakeholders and experts developed a firm appreciation of the progress made and challenges in delivering infrastructure in Australia.

The terms of reference for the Committee inquiry are:

- What initiatives are operating around Australia at local and state government levels that might lower the cost of planning approvals and reduce timeframes for delivery of projects?
- Of those initiatives that the Committee has considered, are any able or appropriate to be implemented on a broader basis, including at federal level?
- Are local, state and federal governments adequately considering the infrastructure challenges that they face and do they have long term plans in place to deal with those challenges?
- For governments that are engaging in long term planning for future infrastructure investment, are they taking steps to protect the land and corridors that are needed to deliver those infrastructure projects in the future?

- What is industry doing to reduce the regulatory and other costs that it faces in competing for infrastructure projects?
- How can Australia increase or deepen the competitive market for infrastructure provision and funding in Australia?

The challenge of delivering productivity enhancing infrastructure in Australia in an efficient manner is subject to the foibles of federation. Generally having three levels of government responsible for the planning, design, financing and construction of infrastructure presents significant challenges.

Engineers Australia noted in their submission that all levels of government must:

Harmonise infrastructure planning and regulation through improved cooperation and collaboration between all levels of government, business and the community.¹

While the Urban Development Institute of Australia noted in their submission that:

Ensuring that planning for infrastructure is both long term and coordinated between states and different levels of government. In the past, governments have failed to adequately take into consideration the impact of infrastructure planning decisions on the plans, goals and objectives of other levels of government, and other jurisdictions. There is a need for infrastructure planning and funding to be coordinated across different levels and functions of government (e.g. land use and transport planning, economic and urban development and environmental assessment) to ensure the most efficient and cost effective infrastructure outcomes.²

The previous Labor Government established Infrastructure Australia (IA) to overcome these challenges. IA is a body charged with developing a truly national, long-term approach to dealing with and responding the nation's growth and restoring infrastructure planning to the heart of national economic management.

Most of the recommendations of the Government members report complement and build on the previous Labor Government's initiatives developing a more independent and effective system of infrastructure planning and delivery in Australia.

However, the Labor members of the Committee have determined based on the evidence presented to the inquiry, that stronger recommendations need to be made in respect of planning for corridor reservation and acquisition, particularly in respect of rail projects and the deficiencies of the Government's approach to

1 Engineers Australia, *Submission 1*, p. 3.

2 Urban Development Institute of Australia, *Submission 9*, p. 2.

privatisation of productive state and Commonwealth infrastructure assets. Our comments and recommendations regarding these issues are detailed below.

The Labor members broadly agree that the Australian Government should work within the COAG framework to promote greater coordination of infrastructure planning between the Commonwealth, State, Territory and local governments, including harmonisation of planning regulations and processes, and reducing regulatory duplication between different levels of government.

All witnesses agreed that at a federal level there should be a continuation of the leadership position held at COAG to drive better practice around infrastructure project identification, planning and selection.

The Productivity Commission report on Public Infrastructure clearly outlines this ideal in two of its recommendations:

- Recommendation 7.1: All governments should put in place best practice institutional and governance arrangements for the provision of public infrastructure.³
- Recommendation 7.3: Australian Government funding or other forms of financial assistance (including incentive payments under Commonwealth-State agreements) for public infrastructure that is provided to State and Territory and Local Governments should be conditional on the adoption of the governance arrangements outlined in recommendation 7.1.⁴

The Labor members broadly agree that the Federal Government via COAG should pursue designation of land corridors for the development of significant infrastructure projects on the basis that these are integrated into the infrastructure planning process of relevant jurisdictions and are supplemented by a demonstration of future need.

However the submissions demonstrate a need to establish a Commonwealth Authority that transcends the electoral cycle to work with the States, Territories, local government and experts to pursue designation of land corridors for the development of infrastructure, including high speed rail.

Significant evidence to this effect was provided to the inquiry by Mr John Alexander OAM, MP, Member for Bennelong, The Australasian Railway Association and, most notably from the Minister from the previous Government the Hon. Anthony Albanese MP, Shadow Minister for Infrastructure and Transport and Member for Grayndler.

3 Productivity Commission, *Public Infrastructure: Inquiry Report*, Volume 1, No. 71, 27 May 2014, pp. 281-2.

4 Productivity Commission, *Public Infrastructure: Inquiry Report*, Volume 1, No. 71, 27 May 2014, p. 297.

Mr Albanese gave evidence that:

The fact that we have a vast continent with a relatively sparse population means that high-speed rail is challenging compared with our Asian and European counterparts, but the fact that our population is so dense in that corridor between Brisbane and Melbourne via Sydney means that it was worthy of further consideration.⁵

I think that support for an authority is an essential precondition. If it does not happen then you will lose momentum. That is the way that the bureaucracy and political class work. If there is not pressure on to keep the momentum and to keep it going, then it will just become another good idea with a report that is on a shelf. That is why I think structurally this is important. My bill is not a partisan bill; it would allow the minister of the day, in this case Minister Truss, to be responsible for appointing the members of the authority. If this does not occur, as much as there is some cynicism about this project, a generation beyond everyone in this room – myself included – will look back and say, 'Why didn't we preserve the corridor? Why didn't we get it right?' There is no doubt that the other fact that the report found was that, as the technology is getting better, the price is also getting cheaper. Like other forms of project, the old demand-supply kicks in. There are more high-speed rail lines being built around the world; therefore the cost is coming down.⁶

Additionally the former Deputy Prime Minister, the Hon Tim Fischer provided a written submission noting that:

Capital City HSR “corridor close out” continues to occur, notably with some near disgraceful planning approvals around outer Melbourne, especially the dogs muddle unfolding at Donnybrook. Significantly international interest remains high re HSR possibilities including investment in Australian HSR by overseas interests but the clock is ticking. Now is the time for some bold decisions, now or virtually never.⁷

The Labor members accepted that the Federal Government should, through COAG, pursue a national system for the registration of infrastructure-related professions including those in the construction and engineering sectors and recognition of qualifications across Australia to better promote the efficient and cost-effective development of infrastructure.

5 The Hon Mr Anthony Albanese MP, *Committee Hansard*, 1 October 2014, p. 1.

6 The Hon Mr Anthony Albanese MP, *Committee Hansard*, 1 October 2014, p. 1.

7 The Hon Tim Fischer AC, *Submission 31*, p. 1.

It was, however, noted that Federal Government education and training policy needs to anticipate increased demand for local infrastructure planning, procurement and delivery skills and should have a skills supply policy that anticipates this demand.

The Labor members of the Committee agreed that the Australian Government, through Infrastructure Australia, must develop innovative financing and funding models for the development of public infrastructure with a view to making the financing and funding of public infrastructure more flexible and responsive to the actual costs and risks in the delivery and operation of that infrastructure.

The options listed by the Government members for further consideration, including user charging, inverted bidding, promotion of infrastructure bonds, and capital recycling were all considered reasonable if carried out in a fair and reasonable manner.

However the Labor members noted that the Federal Government should have regard for the considerable and detailed Productivity Commission criticism of the structure of the "asset recycling initiative", and its potential to incentivise privatisations of monopoly assets without adequate consumer and community protections.⁸

We also note that the Federal Government should fund projects on a mode-neutral basis to avoid distortion and inefficient investment decisions. This includes funding urban passenger rail projects when identified as the best solution to a congestion problem. Just funding road projects sends a signal to cash-strapped States that roads are preferred and cheaper. This has been noted by Infrastructure Australia as distortionary.

It was also strongly argued by the Labor members of the Committee that the Australian Government should ensure that all projects with a capital value of over \$100M have a cost benefit analysis assessed by Infrastructure Australia, using a standard method capable of comparison across projects. The evaluation should inform funding decisions, and therefore should occur prior to any proposed allocation of funds.

8 Productivity Commission, *Public Infrastructure: Inquiry Report*, Volume 1, No. 71, 27 May 2014, pp. 261 - 264.

Recommendations – dissenting report

Recommendation 4

The Committee recommends that the Australian Government legislate to establish a dedicated Commonwealth Authority to work with the states on the designation of land corridors for the development of significant infrastructure projects, including high speed rail.

Recommendation 6

The Committee recommends that the Australian Government, through Infrastructure Australia, develop innovative financing and funding models for the development of public infrastructure with a view to making the financing and funding of public infrastructure more flexible and responsive to the actual costs and risks in the delivery and operation of that infrastructure. Options to consider and further develop include:

- User charging,
- Inverted bidding,
- Promotion of infrastructure bonds, and
- Capital recycling.

The Australian Government should note the considerable and detailed Productivity Commission criticism of the structure of the “asset recycling initiative”, and its potential to incentivise privatisations of monopoly assets without adequate consumer and community protections.

The Australian Government should fund projects on a mode-neutral basis to avoid distortion and inefficient investment decisions. This includes funding urban passenger rail projects when identified as the best solution to a congestion problem. Just funding road projects sends a signal to cash-strapped states that roads are preferred and cheaper. This has been noted by Infrastructure Australia as distortionary.

Hon Matt Thistlethwaite MP
Deputy Chair

Mr Giles MP Member
Member

Hon Ed Husic MP
Supplementary Member

Hon Alannah MacTiernan MP
Supplementary Member

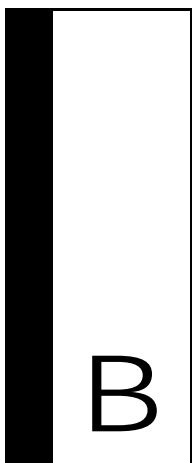
Ms Michelle Rowland MP
Member



Appendix A – List of submissions

- 1 Engineers Australia
- 2 Consult Australia
- 2.1 Consult Australia (*Supplementary*)
- 3 The Chamber of Minerals and Energy of Western Australia
- 4 Bus Industry Confederation
- 5 Australian Trucking Association
- 6 Australian Logistics Council
- 6.1 Australian Logistics Council (*Supplementary*)
- 7 Sydney Airport Corporation Limited
- 7.1 Sydney Airport Corporation Limited (*Supplementary*)
- 8 Business SA
- 9 Urban Development Institute of Australia
- 10 Association of Mining and Exploration Companies
- 10.1 Association of Mining and Exploration Companies (*Supplementary*)
- 10.2 Association of Mining and Exploration Companies (*Supplementary*)
- 11 Australian Government Department of Infrastructure and Regional Development
- 11.1 Australian Government Department of Infrastructure and Regional Development (*Supplementary*)
- 11.2 Australian Government Department of Infrastructure and Regional Development (*Supplementary*)
- 12 Industry Super Australia
- 12.1 Industry Super Australia (*Supplementary*)
- 12.2 Industry Super Australia (*Supplementary*)
- 13 Australian Sustainable Built Environment Council

- 14 Australasian Railway Association
- 15 Northern Territory Government
- 16 Australian Constructors Association
- 17 The Council of Mayors (South East Queensland)
- 18 Queensland Government
- 19 South Australian Government
- 19.1 South Australian Government (*Supplementary*)
- 20 Infrastructure Partnerships Australia
- 21 National Growth Areas Alliance
- 21.1 National Growth Areas Alliance (*Supplementary*)
- 22 Property Council of Australia
- 23 Australian Mobile Telecommunications Association
- 24 BCE Surveying
- 25 Civil Contractors Federation (WA Branch)
- 26 Autodesk
- 27 Australian Academy of Technological Sciences and Engineering
- 28 Victorian Government Department of Transport, Planning and Local Infrastructure
- 29 Australian Government Department of Communications
- 30 Tasmanian Government Department of State Growth
- 31 The Hon Tim Fischer AC
- 32 Office of the National Rail Safety Regulator
- 33 AMP Captial



Appendix B – List of exhibits

- 1 *ACT Infrastructure Plan 2013 Update*
Provided by: The Hon Andrew Barr MLA, Deputy Chief Minister and Minister for Economic Development, ACT Legislative Assembly
- 2 *ACT Government initiatives relating to infrastructure investment and planning*
Provided by: The Hon Andrew Barr MLA, Deputy Chief Minister and Minister for Economic Development, ACT Legislative Assembly
- 3 *ACT Guidelines for Public Private Partnerships*
Provided by: The Hon Andrew Barr MLA, Deputy Chief Minister and Minister for Economic Development, ACT Legislative Assembly
- 4 *Guidelines for Unsolicited Proposals, First Edition: January 2014*
Provided by: The Hon Andrew Barr MLA, Deputy Chief Minister and Minister for Economic Development, ACT Legislative Assembly
- 5 *Infrastructure Partnerships Australia: Road Pricing and Transport Infrastructure Funding: Reform Pathways for Australia (2014)*
Provided by: Infrastructure Partnerships Australia
- 6 *Urban Transport Challenge: A role for road pricing in the Australian context (2010)*
Provided by: Infrastructure Partnerships Australia
- 7 *Fixing NSW: A long-term plan for better infrastructure (2012)*
Provided by: Infrastructure Partnerships Australia
- 8 *Re-Thinking Cities: A Strategy for Integrated Infrastructure (2012)*
Provided by: Infrastructure Partnerships Australia

- 9 *Integrating Australia's Transport Systems: A Strategy for an Efficient Transport Future (2012)*
Provided by: Australasian Railway Association
- 10 *Commuter costs and potential savings*
Provided by: Australasian Railway Association
- 11 *Innovative Funding and Financing for Public Transport*
Provided by: Australasian Railway Association
- 12 *Public Transport Investment*
Provided by: Australasian Railway Association
- 13 *The True Value of Rail*
Provided by: Australasian Railway Association
- 14 *An Economic Growth Partnership Model for Queensland (Related to Sub 17)*
Provided by: The Council of Mayors (SEQ)
- 15 *Understanding and Monitoring the Cost-Determining Factors of Infrastructure Projects (Related to Submission 1)*
Provided by: Engineers Australia
- 16 *Government as an Informed Buyer (Related to Submission 1)*
Provided by: Engineers Australia
- 17 *The Inverted Bid Model (Related to Submission 12)*
Provided by: Industry Super Australia
- 18 *Productivity Commission Public Infrastructure Inquiry - Victorian Government submission (2014)*
Provided by: Victorian Government
- 19 *Productivity Commission Public Infrastructure Inquiry - Victorian Government Supplementary Submission (2014)*
Provided by: Victorian Government
- 20 *Treasury Corporation of Victoria - PPP Modelling Scenarios (2014)*
Provided by: Victorian Government
- 21 *Metro rail promotes urban growth and productivity*
Provided by: Consult Australia

-
- 22 *Crossrail Business Case Summary Report July 2010*
Provided by: Consult Australia
- 23 *Crossrail Funding*
Provided by: Consult Australia
- 24 *Canary Wharf Group contributes £150M to Crossrail*
Provided by: Consult Australia
- 25 *Funding Agreed for Woolwich Crossrail Station Box*
Provided by: Consult Australia
- 26 Procurement Centre of Excellence
Provided by: Consult Australia
- 27 Proportionate Liability Reform Submission to NSW Government, March 2014
Provided by: Consult Australia
- 28 *The Economic Significance of the Australian Logistics Industry*
Provided by: Australian Logistics Council
- 29 *BIM and Australian Infrastructure Efficiencies*
Provided by: Autodesk
- 30 *Capital expenditure (Powerpoint presentation)*
Provided by: Australian Mobile Telecommunications Association
- 31 *Smart Capture (Video Presentation)*
Provided by: BCE Surveying
- 32 *Introducing UK city deals: A smart approach to supercharging economic growth and productivity*
Provided by: Property Council of Australia
- 33 *Finding \$50B: New ways to fund and finance infrastructure*
Provided by: Property Council of Australia
- 34 *Infrastructure Planning: Towards Best Practice*
Provided by: Australian Academy of Technological Sciences and Engineering

- 35 *Productivity Commission Public Infrastructure Inquiry: Victorian Government submission*
Provided by: Victorian Government Department of Treasury and Finance
- 36 *Productivity Commission Public Infrastructure Inquiry: Victorian Government supplementary submission*
Provided by: Victorian Government Department of Treasury and Finance
- 37 *Productivity Commission Public Infrastructure Inquiry: Victorian Government supplementary submission*
Provided by: Victorian Government Department of Treasury and Finance
- 38 *Inland rail: Industry information session – September 2014*
Provided by: Australian Rail Track Corporation
- 39 *Infrastructure Priority List Update – December 2013*
Provided by: Infrastructure Australia
- 40 *Independent cost-benefit analysis of broadband and review of regulation, Volume I – National Broadband Network Market and Regulatory Report*
Provided by: Australian Government Department of Communications
- 41 *NSW Long Term Transport Master Plan – December 2012*
Provided by: NSW Government – Transport for NSW
- 42 *Workshop SA's access regimes (Powerpoint presentation)*
Provided by: SA Government
- 43 *Australia and BIM - Advancing Infrastructure Development - Autodesk Whitepaper - 24 October 2014*
Provided by: Autodesk
- 44 *BIM and Future Infrastructure - Autodesk Submission - 4 April 2014*
Provided by: Autodesk
- 45 *Business Value of BIM for Owners Smart Market Report (2014)*
Provided by: Autodesk
- 46 *Business Value of BIM in Australia and New Zealand Smart Market Report (2014)*
Provided by: Autodesk
- 47 *K46 Eerling Interchange - Johannesburg South Africa - Infrastructure Awards 2012*
Provided by: Autodesk

- 48 *BIM solutions to help design and simulate construction of a replacement railroad bridge - Linge River, Netherlands*
Provided by: Autodesk
- 49 *Highway A4 - Netherlands - Infrastructure Awards 2012*
Provided by: Autodesk
- 50 *M1 Managed Motorways - UK - Infrastructure Awards 2012*
Provided by: Autodesk



Appendix C – List of public hearings and witnesses

Wednesday, 28 May 2014 – Canberra ACT

Department of Infrastructure and Regional Development

Mr James Collett, General Manager, Planning Analysis, Policy and Research Division

Mrs Jessica Hall, Acting General Manager, Infrastructure Policy, Infrastructure Investment Division

Ms Philippa Power, Acting Executive Director, Policy and Research Division

Wednesday, 4 June 2014 – Canberra ACT

Infrastructure Australia

Mr Rory Brennan, Executive Director, Infrastructure Investment

Wednesday, 18 June 2014 – Canberra ACT

Australasian Railway Association

Ms Rhianne Jory, Associate Director, Environment and Regulation

Wednesday, 25 June 2014 – Canberra ACT

Engineers Australia

Mrs Helen Collins, Policy Analyst

Mr Andre Kaspura, Senior Policy Analyst, Public Affairs and Motoring Division

Mrs Sara Ross, National Manager of Public Affairs

Wednesday, 16 July 2014 – Canberra ACT

Mr John Alexander MP, Member for Bennelong, Commonwealth Parliament

Thursday, 7 August 2014 – Sydney NSW**National Growth Areas Alliance**

Ms Ruth Spielman, Executive Officer

Consult Australia

Mr Jonathan Cartledge, Director, Policy and Government Relations

Mr Robin Schuck, Senior Adviser, Policy and Government Relations

Australian Sustainable Built Environment Council

Mr Jonathan Cartledge, Chair, Cities and Regions Task Group

Infrastructure Partnerships Australia

Mr Adrian Dwyer, Head of Policy

Mr Brendan Lyon, Chief Executive Officer

Sydney Airport Corporation

Ms Sally Fielke, General Manager, Corporate Affairs

Mr Ted Plummer, Head of Government & Community Relations, Corporate Affairs

Wednesday, 27 August 2014 – Canberra ACT**Productivity Commission**

Mr Peter Harris, Chairman

Mr Paul Lindwall, Acting Commissioner

Friday, 29 August 2014 – Canberra ACT**BCE Surveying Pty Ltd**

Mr David Evans, State Manager

Mr Russell Fuller-Hill, Imaging Manager

Mr Ian Smith, Chief Surveyor

Property Council of Australia

Ms Caryn Kakas, Head, External and Government Affairs

Mr Charles Thomas, National Policy Manager

Australian Logistics Council

Mr Kerry Corke, Policy Adviser

Mr Duncan Sheppard, Director, Communications and Policy

Association of Mining and Exploration Companies Inc

Mr Simon Bennison, Chief Executive Officer

Mr Graham Short, National Policy Manager

Australian Mobile Telecommunications Association

Mr Chris Althaus, Chief Executive Officer

Ms Lisa Brown, Policy Manager

Mr Ray McKenzie, Manager, Mobile Carriers Forum

South Australian Government Department of Planning, Transport and Infrastructure

Mr Mark Elford, Acting Group Executive Director, Infrastructure Division

Wednesday, 3 September 2014 – Canberra ACT**Industry Super Australia/IFM Investors**

Mr Azhar Abidi, Investment Director, IFM Investors

Mr Matthew Linden, Director of Public Affairs, Industry Super Australia

Ms Jane McGill, Senior Adviser Infrastructure, Industry Super Australia

Wednesday, 24 September 2014 – Canberra ACT**Australian Government Department of Infrastructure and Regional Development**

Mr James Collett, General Manager, Planning Analysis Branch

Ms Jessica Hall, Acting General Manager, Infrastructure Policy Branch,
Infrastructure Investment Division

Ms Philippa Power, Acting Executive Director, Policy and Research Division

Infrastructure Australia

Mr Rory Brennan, Executive Director, Infrastructure Investment

Wednesday, 1 October 2014 – Canberra ACT

The Hon Anthony Albanese MP, Member for Grayndler, Commonwealth
Parliament

Friday, 31 October 2014 – Canberra ACT (via teleconference)

Civil Contractors Federation (WA Branch)

Mr Andy Graham, Policy Manager

Mr Jeff Miller, Chief Executive Officer

Autodesk

Mr Roger Somerville, Director of Government Affairs, APAC, Autodesk Asia Pte Ltd

Mr Andrew Hill, BIM Practice Leader, APAC, Autodesk Consulting