



Australian Academy of Technological Sciences and Engineering
Level 1, 1 Bowen Crescent, Melbourne Vic 3004
GPO Box 4055, Melbourne, Vic 3001, Australia
T+61 3 9864 0900 F+61 3 9864 0930 www.atse.org.au
Australian Academy of Technological Sciences and Engineering Limited – Incorporated ACT ACN 008 520 394 ABN 58 008 520 394

Submission to the

House of Representatives Standing Committee on
Infrastructure and Communications inquiry into Infrastructure
Planning and Procurement

by

The Australian Academy of Technological Sciences and
Engineering
(ATSE)

to

House of Representatives Standing Committee on
Infrastructure and Communications
Parliament of Australia
September 2014

Contact details:
Australian Academy of Technological Sciences and Engineering
03 9864 0900
policyresearch@atse.org.au
www.atse.org.au

Attachment:

1. ATSE-IA Workshop Communique: *Infrastructure Planning: Towards Best Practice*



President
Dr Alan Finkel AO FTSE

Committee Secretary
Standing Committee on Infrastructure and Communications
House of Representatives
PO Box 6021
Parliament House
Canberra ACT 2600

23 September 2014

Dear Committee Secretary

**ATSE Submission to the House of Representatives Standing Committee on
Infrastructure and Communications - Infrastructure Planning and Procurement**

The Australian Academy of Technological Sciences and Engineering (ATSE)¹ welcomes the opportunity to address the Terms of Reference relating to Infrastructure Planning and Procurement.

Effective infrastructure planning is a critical issue for Australia, particularly as our population continues to grow. Infrastructure - notably transport, water, energy and communications - is vital for driving productivity, underpinning prosperity and our way of life. It impacts on all aspects of our society.

Establishing robust infrastructure plans is critical. Weaknesses in those plans impose economic costs that are usually difficult and expensive to correct.

Improving infrastructure planning and investment is seen as a major challenge facing Australia, as well as other countries. Meeting this challenge will better equip Australia to address other demands such as raising productivity growth, dealing with demographic change, and maintaining our competitive advantage.

Terms of Reference

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?

ATSE has no comment on this Term.

¹ ATSE advocates for a future in which technological sciences, engineering and innovation contribute significantly to Australia's social, economic and environmental wellbeing. The Academy is empowered in its mission by some 800 Fellows drawn from industry, academia, research institutes and government, who represent the brightest and the best in technological sciences and engineering in Australia. The Academy provides robust, independent and trusted evidence-based advice on technological issues of national importance. ATSE fosters national and international collaboration and encourages technology transfer for economic, social and environmental benefit.

www.atse.org.au

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?

In March 2013, ATSE and Infrastructure Australia held a two-day workshop '*Infrastructure Planning: Towards Best Practice*² that explored:

- making infrastructure planning consistent with Australia's long term national vision and aspirations;
- land use, regional needs, population growth;
- issues of transparency, planning horizons, project prioritisation and evaluation, selection processes and governance frameworks; and
- models for the assessment of social, environmental and economic impacts and benefits.

In order to guide and direct infrastructure planning it is clear that our long term national vision and aspirations need to be better articulated. The workshop communique, which accompanies this submission, provides details of the approaches and initiatives that could address these issues.

Relevant to this Term of Reference, the workshop identified several key changes that need to be made to infrastructure planning in Australia, such as:

Better long term plans

Governments need to follow through on their commitments to the development of robust and integrated long term (15-30 year) strategic plans for our cities, as agreed by the Council of Australian Governments (COAG) in December 2009. They also need to deliver on their commitments to develop medium-term (5-15 years) prioritised infrastructure and land use plans, so that industry has greater confidence to invest and the community has greater certainty. There is a need to improve the quality and consistency of project proposals that are aligned with these strategic plans and that robustly demonstrate net economic, social and environmental benefits.

Another advantage of long-term planning is that it boosts the confidence of engineering and other firms to invest in the most modern and productive equipment that needs to be amortised over several projects, over several years, for example, tunnelling machines, cranes, fabricating facilities, barges and helicopters. There seems to be little likelihood of investment in ship yards or wind farm tower fabrication with the constant changing policy environment.

Australia's adversarial political system and three tiers of government make infrastructure planning difficult. There is a need to strive for bi-partisan support between political parties, and tri-partisan support between levels of government. A formal consultative mechanism introduced at the earliest possible planning stage that attempts to resolve differences as quickly as possible would be welcome.

² ATSE-IA Workshop Communique: *Infrastructure Planning: Towards Best Practice*
<http://www.atse.org.au/Documents/Events/atse-ia-international-workshop/atse-infrastructure-australia-communique.pdf>

Medium term budgets to support development of a project pipeline

Current government budget processes, involving a one year budget and three years of forward estimates, are partly why the country has struggled to establish an effective infrastructure pipeline. 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.

Land-use management

The problems associated with poor land-use planning are obvious to most observers. Efforts to improve the integration of land use and transport planning (especially) need ongoing support and momentum from governments, industry and the community. Reserving corridors for future infrastructure networks is vital if we are to maintain a capacity to deliver affordable infrastructure in the future.

The workshop noted the Western Australian system where a largely independent planning body sets aside land at the earliest possible stage for future infrastructure corridors and sites and then has an assured funding stream to permit it to acquire that land in a timely manner, often when it is still undeveloped.

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?

ATSE recommends that more focus should be placed on maintenance and high value/low cost projects. Outsourcing of technological input into the decision making processes of Federal, State and local governments has led to domination of selected projects with short term financing. This leads to less than adequate provision for adequate maintenance that neglects whole-of-life costing and leads to the acceptance of lowest cost tendering irrespective of the longer term maintenance costs.

ATSE has noted that Queensland has recently developed a promising approach to addressing infrastructure challenges by developing longer term plans.

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?

See the above response addressing Term 2.

5. What is industry doing to reduce the regulatory and other costs that it faces in competing for infrastructure projects?

ATSE has no comment on this Term.

6. How can Australia increase or deepen the competitive market for infrastructure provision and funding in Australia?

- Employ user-pays charges based on at least marginal operating costs and on any external costs that can be attributed to the operation of the new infrastructure.
- Many current projects are planned around benefit-cost analyses where the range of benefits and costs is too narrow and the time frame examined too short. ATSE recommends that an examination of a selection of recently completed projects is carried out to determine the actual outcomes of the projects and (a) compare these with the projected outcomes and (b) determine and quantify the broader positive and negative outcomes of the projects over time.

For example, transport projects need to be assessed not only on their patronage and their internal profitability, but also on the impacts that they have, both positive and negative, on the rest of the system.

- ATSE recognises that there would be merit in, and recommends examining, whether past projects have delivered the optimum value for money, particularly with respect to both alternative delivery mechanisms and practice in other countries and at other times. Included in the examination would be more open discussion of failures and the cost of reparation that accompanies the prospect of litigation. Additionally, it would be appropriate to investigate the reasons for the apparent high cost of infrastructure compared with other countries, also noted in the Productivity Commission Inquiry Report into Public Infrastructure (2014). The Academy has many Fellows who have had major roles in many aspects of infrastructure planning, development and operation, and as such would be pleased to participate in any recommended reviews.