Submission No 20

INQUIRY INTO RAIL INFRASTRUCTURE PROJECT COSTING IN NSW

Organisation: The Treasury NSW

Name: Mr Matthew Roberts

Position: Deputy Secretary

Date received: 9/11/2011

Attachment 1 – Overview of the Capital Program System
Attachment 2 – Infrastructure NSW

NSW GOVERNMENT | Premier & Cabinet

The Hon Natasha Maclaren-Jones MLC
Committee Chair
General Purpose Standing Committee No. 3
Parliament House
Macquarie Street
Sydney NSW 2000

Dear Ms Maclaren-Jones

I refer to your letter dated 23 August 2011 regarding an inquiry into rail infrastructure project costing in NSW being conducted by the NSW Legislative Council's General Purpose Standing Committee No. 3.

Please find attached the NSW Treasury submission, endorsed by the Department of Premier and Cabinet. The Department of Premier and Cabinet also endorses the Department of Transport's recent submission to the inquiry.

Should you require further information please contact Mr Tim Hurst, Acting Assistant Director General, Policy and Strategy on

Yours sincerely

Chris Eccles
Director General

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NSW GOVERNMENT | The Treasury

Mr Chris Eccles
Director General
Department of Premier and Cabinet
Level 39 Governor Macquarie Tower
1 Farrer Place
SYDNEY NSW 2000

Dear Mr Eccles

NSW Legislative Council General Purpose Standing Committee No. 3 Submission to the Inquiry into Rail Infrastructure Project Costings in NSW

Treasury is committed to ensuring all Government decisions, including decisions on capital investment, are based on the best available evidence. This includes evidence as to the cost and benefits of particular proposals, and the impact of an investment decision on the future fiscal position of the State.

This submission addresses the itemised matters in the Standing Committee's Term of Reference as well as provides a more detailed explanation of the actual capital planning processes of the State.

Treasury does not undertake detailed project costings for either rail projects or for capital projects generally. Treasury does, however, review advice provided by operating agencies. The responsibility for cost (and benefit) estimation remains with the relevant agencies and their retained experts who assemble the detailed studies and technical resources necessary for compiling an estimate of project expenditure.

It is important to understand that planning, and cost estimation, takes place at multiple levels. Concept estimates may, for example, be required when scoping out a long term program of works (as required by agencies under the Total Asset Management Policy - Treasury Policy and Guidelines Paper TPP08-2). However, as a project progresses through the development and procurement continuum, more sophisticated and rigorous estimates will be required.

Excessively high cost estimates carry risks for the community if competing projects are 'crowded out' and not included in budget constrained forward programs. Conversely, there are also significant risks if a project cost is underestimated and committed to on the basis of its relative affordability. Underestimation of project costs inevitably places pressure on funds available for other Government programs. Treasury's concern is to ensure the best estimates are made at each stage of the costing process.

As to the itemised matters:

a) **Methodologies used to cost rail projects**. Treasury does not undertake project costings, particularly for sophisticated rail projects. However, Treasury does provide detailed guidelines for the preparation of business cases for capital projects. The key references are the Guidelines for Capital Business Cases, (TPP08-5), Economic Appraisal Principles and Procedures Simplified (TPP07-6) Guidelines for Financial Appraisal (TPP07-4) and NSW Government Procurement Policy (TPP04-1).

   Cost estimates are predictions about an uncertain future event which will be impacted by a range of both systemic and non-systemic risks which will affect the final cost (and benefit). This is particularly the case for large, relatively complex rail projects. Estimates may also be expressed as falling within a range as a result of scenario analysis or the adoption of more stochastic approaches.

   Generally, complex capital projects have an asymmetric distribution of cost estimates, with an upward bias. The estimates do not follow a normal distribution that is symmetrical around the mean. Generally while there is a better chance of savings compared to the expected or average cost, these savings are likely to be relatively small and are balanced by the possibility of significantly higher costs. This characteristic may weigh against the use of a "P50" (or average) level estimates.

   For complex projects, Government agencies adopt a "P90" estimate, meaning there is a 90% probability the estimate will not exceed the actual cost of the project. This estimate is consistent with the approach that might be taken by a contractor who contracts on a fixed price basis with the responsibility to bear most of the variations in input costs. This approach is supported by recommendations of the Auditor General made in the Performance Audit of Government expenditure and transport planning in relation to implementing Barangaroo (June 2011). It is also followed by other jurisdictions (see, for example, Project Cost Estimating Manual July 2009, Department of Main Roads Queensland, pages 16 and 33 and also Best Practice Cost Estimation in Land Transport Infrastructure Projects, October 2010, Dr Fiona Tan and Tariro Makwasha, page 9).

   The difficulty with large complex projects is they do not actually constitute part of a portfolio of projects. The consequences of a cost overrun (for example, unpredictable cost increases giving rise to a need for aggressive reductions in other investments) are far more significant than an under-run (savings which may be re-allocated to other projects or maintenance of assets). Hence, there is a preference for fixed price delivery contracts to avoid funding shortages or at least alliance arrangements where the risks are pooled with a private contractor.

   The final project estimate should be adopted after an open contestable process. At this point the Government has the opportunity of deciding whether to commit to the project on the basis of value for money and affordability.

b) **Concept estimates** are not referred to in TPP08-5 although the concept of a preliminary business case is. These may have a margin of error of up to 25% compared to final business cases where it should ideally be reduced to 10% (page 10). Note, this margin is driven by the level of uncertainty as to cost estimates (sometimes stochastically determined). It is not an allowance to be added onto an otherwise reasonable estimate.

c) **The differences between road and rail cost methodologies.** Transport for NSW will provide advice on this aspect. It should be noted that some road projects are relatively more generic and with a better prospect of greater precision in estimates, including being able to rely on very recent history of projects. This lends itself to far greater use of standard costings and inflators. Rail projects, by comparison, can be unique with limited local contemporary comparators.

d) **Methodologies used by other Australian States and internationally.** The Committee should seek submissions from other bodies and/or undertake its own research.

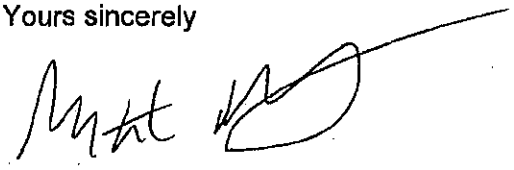
e) **Tendering processes**. Transport for NSW can provide evidence on their internal processes and compliance with NSW Government Procurement Policy.

There are varying contracting approaches which are designed to manage the uncertainty inherent in large, relatively unique rail procurement. For example, the rollingstock private public partnership with Reliance Rail which assumes the price risk for both construction and long term maintenance of rollingstock. In contrast, the Kingsgrove to Revesby quadruplication is the subject of an alliance contract where risks are shared.

Appendix 1 sets out the capital planning processes and policies in more detail. All recent major rail procurements have been over-seen by Cabinet, including at each major stage of the final contracting phase.

f) **Other related matter**. Appendix 2 summarises the role of Infrastructure NSW which will be actively engaged in the strategic planning processes of the Government including procuring major transport capital projects.

Yours sincerely



Matthew Roberts
Deputy Secretary