

**BEFORE A BOARD OF INQUIRY
EAST WEST LINK PROPOSAL**

IN THE MATTER of the Resource Management Act 1991 (**RMA**)

AND

IN THE MATTER of a Board of Inquiry appointed under s149J RMA to consider notices of requirement and resource consent applications made by the New Zealand Transport Agency (**NZTA**) in relation to the East West Link roading proposal in Auckland.

**SUMMARY OF EVIDENCE OF KIERAN O'NEILL MURRAY FOR MERCURY
NZ LIMITED
Economics
DATED 30 AUGUST 2017**

MinterEllisonRuddWatts

PO Box 3798, Auckland 1140
TELEPHONE +64 9 353 9700
FACSIMILE +64 9 353 9701
SOLICITOR ACTING:

PARTNER RESPONSIBLE: RACHEL DEVINE

Summary of my evidence

1. A core tenet of economics is that resources are always limited and hence a decision to have more of something is simultaneously a decision to have less of something else. For a project to improve economic wellbeing – to provide a regional or national economic benefit – its economic benefits must exceed its economic costs.
2. These propositions are not contested by economists – all five economists at the expert witness caucusing on 29 May 2017 agreed that an economic assessment should consider both economic costs and economic benefits (paragraph 1.10, joint witness statement).
3. The economic evidence presented for the NZTA by Mr Williamson describes, but does not quantify, the positive economic effects of the East West Link proposal.¹ The descriptions provided by Mr Williamson are not contested. A new road would reduce travel times and improve travel reliability - the economic purpose of a road – and, thereby, support a range of economic benefits.
4. However, Mr Williamson's evidence did not assess *any* economic costs. His evidence, therefore, leaves unanswered whether this project would improve economic wellbeing.

Matters that have occurred since I prepared my evidence in chief

Expert witness caucusing

5. I attended the economics expert witness caucusing on 29 May 2017.

¹ Statement of Primary Evidence of John Williamson on Behalf of the New Zealand Transport Agency Economic Evidence Dated 12 April 2017.

6. Four of the 5 economists at our caucus considered that an assessment of the effects on economic wellbeing should be available to the Board (para 1.13(a), joint witness statement).
7. Mr Williamson considered that such an assessment was done in the Detailed Business Case (para 1.13(b), joint witness statement). However, this business case was for a different purpose (primarily a funding decision),² and it appears to quantify only the costs NZTA would incur and not those incurred by the wider community.
8. Mr Norman, Dr Curtin, and I, all looked at the Detailed Business Case and could not draw from it an assessment of whether the project, as lodged, would improve economic wellbeing. Hence, our conclusions in the joint witness conferencing that the application and subsequent evidence does not establish:
 - (a) whether all material benefits and opportunity costs were included in the analysis or how those included were estimated (para 1.14(b), joint witness statement); or
 - (b) what the up-to-date assessment of economic costs and benefits was for the latest iteration of the project (para 1.14(c), joint witness statement).

Mr Williamson's rebuttal evidence – 20 June 2017 and my response

9. In his rebuttal evidence, Mr Williamson comments that the costs of the project may now be higher than initially thought, but suggests the benefits would also have increased.³ Unfortunately, neither he, nor Mr Wickman, provides an update of the magnitude of those increases in expected costs and benefits.
10. Further, Mr Williamson notes his understanding that “the BCR for the Project” is not relevant since the capital costs of the project to NZTA “are not relevant

² As Mr Williamson acknowledged in his rebuttal evidence, para. 6.1.

³ Mr Williamson, rebuttal evidence, paragraph 7.6. (see also Mr Wickman, Evidence in Chief, paragraph 4.26).

under the RMA”.⁴ This statement seems to conflate two different concepts, and fails to distinguish that a piece of information can be used to inform different assessments.

11. Mr Williamson’s evidence is that the BCR he worked on was used to inform a decision by the NZTA as to which project it would promote and, presumably, a discussion with the government as to funding. I agree that how the NZTA selects its projects is separable from an analysis of whether a chosen project would improve economic wellbeing.
12. When it comes to considering whether a project would improve economic wellbeing, the opportunity cost of capital committed to a project is unambiguously an economic cost. Public funds would be spent in constructing the project, public resources are limited, and a decision to proceed with the East West Link would simultaneously be a decision to forego the use of those funds for other purposes.
13. It may be convenient in an economic analysis of a resource consent proposal for a private development, say an extension to the balcony on my house, to ignore the capital costs. This is because, in those circumstances, the developer can reasonably be expected to have assessed the private benefits to exceed the private costs, and the analysis can focus on the costs and benefits to the community.
14. However, to ignore the \$1 billion (or closer to \$2 billion if costs are considered in the year in which they would be incurred) of public resources which would be consumed by this project, along with other economic costs to the community, would be to conclude that economic wellbeing, is not a relevant matter under the RMA. Whether a project would improve our economic wellbeing cannot sensibly be assessed without recognising its economic costs.

⁴ Paragraph 7.4.

15. As outlined in my evidence-in-chief, another potential material cost, not considered in the economic assessments undertaken by the NZTA, is the cost to New Zealand from impairing the option to re-commence thermal electricity generation at the Southdown Site. The Southdown Site has several advantages for re-starting thermal generation quickly – proximity to gas and transmission infrastructure, resource consents, and existing generation plant infrastructure – and it is in Auckland.
16. These advantages mean thermal generation at Southdown could be restarted quickly relative to generation at other sites – I understand it might currently take 3 to 4 months to restart generation at Southdown, whereas if infrastructure were removed to construct the East West Link, the time period to re-start would lengthen by 4 months or more (Flexman, Statement of Evidence, paragraphs 46, 47).
17. The option to restart generation at Southdown, within 3 to 4 months, has an economic value. This value arises because of the possibility for national or regional security of electricity supply to be compromised over a prolonged period of time by unexpected events – for example, a catastrophic failure of a large piece of system equipment like the HVDC occurring at the same time as some other event such as a dry cold winter.
18. In his rebuttal evidence, Mr Williamson expresses the view that the economic cost of the loss of the option to re-start the Southdown Power Station in 3-4 months is unlikely to be material, once probability and timing are taken into account.⁵
19. The difficulty with this statement is that neither the probability of an unexpected event, nor its timing, is known. I consider the probability of the Southdown Power Station needing to re-start within 3-4 months is likely to be low, but I am confident it is not zero – history shows we cannot plan for all possible eventualities in a complex system. Because the event would be

⁵ Statement of Rebuttal Evidence of John Williamson, para. 8.12.

unexpected, we have no information on timing. It might not occur for many years, as Mr Williamson seems to assume, and it might not occur at all. But it might also occur tomorrow.

20. We do know that a loss of electricity to a region, or the nation, has a very substantial economic and social cost. Hence, even a small increase in the likelihood of such an outage is a significant public cost.
21. While we cannot reliably quantify that cost in monetary values as the probability of the event is unknown, this does not mean that the cost should be ignored in an assessment of the effect of the project on economic wellbeing. The cost should be assessed qualitatively along with other difficult to quantify costs and benefits.

Kieran Murray

30 August 2017