Submission No 7

INQUIRY INTO RAIL INFRASTRUCTURE PROJECT COSTING IN NSW

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The Director
General Purpose Standing Committee No. 3
Parliament House
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Submission: Inquiry into rail infrastructure project costing in NSW

As a provider of quality public transport in NSW, Busways has a strong interest in ensuring funds are allocated wisely and with the best potential to achieve a real impact on mode share. Whilst heavy rail does have a vital role to play, the emerging transport options being pursued around the world in both developed and developing countries are not featuring in any future plans by the state government. And whilst it is critical to ensure the costing of any infrastructure project is economically responsible, it is possibly more important to focus on why cost effective forms of public transport are largely being ignored in NSW. Consequently, it is requested the committee consider this submission under part (f) of the terms of reference, that being "any other related matter".

Rail infrastructure is expensive, slow to construct, costly to maintain and operate, inefficient, inflexible and environmentally questionable. By comparison, bus rapid transit (BRT) is able to deliver capacity that is similar to rail but for a fraction of the initial set up and on-going operational cost, whilst offering a superior outcome in terms of flexibility. As such, the question should not be "how are rail infrastructure projects costed" but "why rail infrastructure rather than bus rapid transit infrastructure". To support this case, our submission will focus on four critical aspects:

1. Cost
2. Delivery
3. Flexibility
4. Capacity

Each of these aspects will be measured in a heavy rail vs BRT scenario to provide further evidence of the positive benefits that BRT can provide in a modern transport network.

One of the most significant considerations in terms of rail projects (and hence the main purpose of this inquiry) is cost. Successive governments in NSW have been reluctant to deliver any new rail projects because the enormous cost involved in not only construction, but also design, property acquisition, rolling stock and on-going maintenance/operation. BRT is easier to design (largely because gradient and alignment is not as restrictive as rail); does not require vast tracts of land for corridor purposes (roadways can be as narrow as 8 metres wide with smaller station footprints); can be built without needing an overhead electrical power supply (cutting down construction time and complexity); and with rolling stock that is cheaper and delivered within a 3 to 6 month timeframe (compared with NSW's latest rail cars which are years overdue and significantly over budget). Studies done by the Breakthrough Technologies Institute (Washington DC) reveal the average cost per mile (in $US) for heavy rail was $200M compared to $70M for light rail and $25M for BRT (in 2007).

Several of the factors which make BRT more cost effective than heavy rail are the same reasons why BRT is easier to deliver than heavy rail. In greenfield sites, obtaining land to develop a rail system is comparatively easy, as is land for a BRT, with construction only limited by the complexity of the transport mode chosen. However, once construction reaches developed areas, delivery of heavy rail slows while expensive and lengthy tunnels need to be bored and developed. Whilst is possible that BRT could also require tunnels, there are other on-road options that can be pursued, speeding up the delivery process. There are also less environmental obstacles associated with an on-road vs tunnel corridor, not to mention greater community acceptance due to the less intrusive nature of BRT operations.

Flexibility is one of the greatest assets of a BRT corridor. Rail projects (both heavy and light) are eternally limited due to the fact they operate along fixed tracks, with reduced opportunities for passing and no ability to reroute due to corridor blockages. Further, rail traditionally requires a mode transfer as the walking distance catchment of the stations is generally only 800 - 1000 metres. In complete contrast, BRT can offer the advantage of travelling through the suburbs to pick up passengers before joining the BRT corridor to operate unobstructed into the final destination. The vehicles are also able to be rerouted instantly, can pass with relative ease, or be redirected if operational circumstances dictate. The flexibility of BRT also extends to frequency and the associated operating benefits. Buses can be run as close together as necessary, affording frequencies of every 30 seconds which increases carrying capacity during the times of peak demand. Alternatively, when demand subsides, frequency does not need to be reduced as dramatically as heavy rail, as the smaller unit size of the bus means it is easier to justify a continual frequent operation. Rail, with its multiple unit operational characteristics, cannot justify running at a 2-5 minute frequency with low demand.

Contrary to popular opinion, BRT is able to match the carrying capacity of light and heavy rail corridors in an Australian context. Even though rail is able to carry a larger number of people in absolute terms, through high frequency combined with multiple unit sets, the mode share characteristics in NSW don't require such capacity. A working paper published

by Hensher and Golob from the Institute of Transport and Logistics Studies (Sydney) has shown that Sydney's most highly patronised rail corridor during the morning peak carries approximately 17,280 passengers in its busiest hour – by comparison, some of the South American BRT systems can carry up to 45,000 people per hour per direction and even Brisbane's Busway system carries approximately 10,000 people per hour. This not only emphasises the carrying capacity of a BRT but it shows that the flexibility offered by frequency and vehicle type (articulated and tri-articulated buses) can give BRT the potential to accommodate most capacity scenarios.

Bus Rapid Transit is a transport mode that is increasingly becoming the preferred option around the world. Whilst it has an important role to play within an overall transport system, it also has the potential to become a stand-alone transport network in areas of lower residential densities. Sydney is a prime example where the adoption of BRT to serve the new fringe residential developments in the northwest and southwest would be far more cost effective and flexible than the heavy rail systems that are being pursued. So the question that needs to be asked is why Sydney continues with its expensive rail obsession when there are proven alternatives readily available. And whilst this inquiry may help to determine why our rail projects cost so much, the outcome would be enhanced if it could also recommend alternative transport modes that will deliver stronger economic and community benefits.

Yours sincerely
Busways Group Pty Ltd

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