CSELR EIS Submission

1 Introduction

The letter from Planning and Infrastructure outlining the Director General's requirements it was stated:
"Sufficient information must be provided to the community so that it has a good understanding of what is being proposed and the potential impacts."

Major objectives of the CSELR are to improve the capacity and performance of the transport network and reduce congestion particularly in the CBD. Throughout the process I have tried with little success to have the project team and the Minister properly clarify and document the assumptions used in the analysis of whether this objective will be achieved. The EIS has no proper statement of the assumptions used and their applicability. Several key assumptions, while possibly justified in isolation, relate to idealised situations which are not always applicable. Some assumptions cannot be true at the same time.

Despite repeated requests for clarification, information on critical public interest issues including fare structure (and hence the relative cost to users) and the basis for claimed benefits have been withheld.

Infrastructure NSW has stated regarding Light Rail in the CBD "The question is whether the primary objective is to augment mass transit capacity or to improve urban amenity, or both. Potentially, these two objectives appear to conflict" (The State Infrastructure Strategy 2012 – 2032 section 7.4.4). The EIS has not adequately addressed this conflict.

The EIS has conflated projects (especially CSELR and bus network redesign) to claim benefits for this project from the outcomes of other projects.

A well designed bus network is a prerequisite for both the construction and operation of the CSELR, but future modelling compares the combined benefits with "do nothing" or "do minimum" scenarios but not against the a redesigned bus network. The most reasonable conclusion based on the available information is that, despite the significant adverse impacts both during construction and operation and large financial cost, the CSELR offers little or no additional net benefit for public transport users when compared with the bus option. The outcomes could well be worse.

The project is highly complex with a wide range of environmental and other public interest impacts. The EIS is a very large document which in turn references other documents and projects. The EIS documentation is repetitive and difficult to navigate for the general public. There are identified instances (e.g. Surry Hills parking) where faulty baseline data has been used to justify obviously incorrect solutions. TfNSW acknowledges that there are errors in the EIS (but does not detail what they are). These problems undermine confidence in the reliability of all data and conclusions in the EIS. Access to TfNSW staff able to answer relevant questions has been inadequate.

In summary the information provided to the community has been limited and selective and the EIS produces an analysis which overstates the environmental benefits and minimises the adverse impacts of the Project.
I submit that, based on the information provided in the EIS, it cannot be determined that, the project will achieve the stated goals. There is a significant risk that the project will, in operation have significant adverse impact in key areas. On this basis I submit that the project should not be approved.

2 Assumptions

2.1 Capacity

The EIS states the figure of 9000 passengers per hour (the "design capacity") and then uses this in the context of meeting passenger demand. Nowhere is there an analysis of the "achievable capacity", nor on the impact of loading levels on other parameters such as journey time or on-time running.

The two minute headway needed for the 9000 number and hence the claim that the CSELR provides capacity for future growth, is not supported by proper modelling and may not be achievable in practice.

Technical paper 1 Figure 3-12: 2021 Inbound AM Peak CSELR Line Load and Capacity Consumed, shows that the initial AM inbound passenger capacity approaches or exceeds 90% at more than one stop. Outbound AM traffic also reaches 80%. Variability in passengers arriving at the stops is likely to be high as many are transferring from buses. Significant numbers of waiting passengers will be unable to board some services decreasing reliability from a user perspective. It will also increase dwell times resulting in bunching, adversely affecting on-time running.

2.2 Frequency

Two minute frequency is used to calculate maximum capacity but three minute peak hour frequency is initially proposed and has generally been used for CBD traffic modelling. A two minute service means one per minute through an intersection which risks severe congestion if light rail is given priority in both directions.

Repeated reference is made to three minute “turn up and go” but the frequency on the branch lines will be half and off-peak even worse. The EIS states up to 10 minutes (table 5.5), but this is for busier evenings. The frequencies for weekday evenings is not stated but I was told during the EIS consultation up to 12 minutes in the evening is proposed. This is not “turn up and go” for a trunk service. I have been told previously by a manager from Sydney Buses that research had shown that seven minutes is the point after which passengers become disaffected. The off-peak frequencies on the branches exceed this figure. This will also cause significant extra travel time for passengers forced to change modes. The EIS (and cost benefit analysis) appears to ignore the extra travel time and customer dissatisfaction.

There is no consideration given to the impact, or likely success of trying to co-ordinate bus and light rail at the termini.

Because of the number of buses replaced by each LRV, the frequency of LR will be less than the existing bus network.

2.3 Reliability.

The claims and comparisons about reliability are problematic.
The figure of 97% reliability is repeatedly stated without clarification and is used as the basis for many conclusions regarding benefits and mitigation of environmental impact. However in Technical paper 1 p4 it is stated: “by operating in a segregated environment without competition for road space, light rail can achieve service reliability of 97 per

cent". On p27 of the same document the 97% figure is again used referencing *Transport for NSW, Sydney's Light Rail Future, 2012*. That document was produced at a time when TfNSW was saying the detailed design of the CSELR had not been done. Much of the CSELR operates on-road either using separate lanes or shared with buses and in a pedestrian mall. There are a significant number of intersections. The CSELR also has two merging branches. These factors are significantly different from the idealised assumptions which seem to have been used. There is no information in the EIS on the interaction between utilisation, frequency and reliability. These are clearly not independent variables and the absence of any clarification and modelling in the EIS is an unacceptable omission. Issues including the degree and impact of intersection priority and pedestrian control in George St demanded by this reliability target, especially for a two minute frequency, have not been adequately addressed.

2.4 Travel Times

Table 11.2 states:
In conjunction with the CSELR, the bus changes are expected to deliver a 12 to 25% increase to bus speeds on the network in the morning peak, which is substantially higher than the traffic speed benefits expected from the CSELR alone. However, Technical paper 1 figure 5-35 gives a figure of 5% compared with "do minimal". (There is no range of error given for the modelling).

The EIS aggregates the benefits from bus changes and CSELR. (e.g. table 11.2). The comparative modelling in the EIS compares these aggregated benefits against "do nothing" or minimal change scenarios. There is inadequate comparison of the preferred option against other options including bus redesign only.

The EIS largely ignores the impact on total journey time.
Many travellers from the SE will need to change modes at Kingsford or Randwick. Travellers from other destinations will need to make new transfers near Central and Town Hall or walk to reach their destinations. The EIS has failed to assess the extra time needed to transfer and wait for an available connection.

3 Why is the Project Needed

On page 8 of the EIS overview it is stated under the heading Why is the CSELR needed?
"The CSELR would support future growth by improving public transport capacity, ..."
This statement is not consistent with the design parameters. The CSELR has a capacity at startup of 6000 passengers per hour and a maximum theoretical capacity of 9000 passengers per hour. This is equivalent to approximately 100 and 150 single deck buses respectively (assuming 60 passengers maximum per bus). However, the closure of George St will displace over 200 buses per hour in the am peak as this road capacity will be lost to the bus network. In addition general traffic which is diverted from George St will increase congestion on other streets, particularly Elizabeth St, further reducing capacity and performance of public transport. Both in the construction and operational phases the CSELR will clearly result in a reduction in public transport capacity along the CBD spine.

Throughout the EIS and other documentation reference is made to the reduction of buses entering the CBD. These statements are frequently inconsistent and often ignore or understate the extent to which the reduction in buses is to be achieved by a redesign of the bus network which is, or could be, independent of the CSELR. For example in the CSELR Business Case Summary the Minister states "Light rail offers a high capacity, accessible

and reliable public transport solution. It will result in up to 220 fewer peak hour buses entering the city centre..” Nowhere in the Business Case Summary is it made clear that any, let alone most, of this reduction is not attributable to the CSELR. EIS 3.5 states “The CSELR proposal would reduce buses in the CBD by approximately 180 in the morning’s busiest hour. When combined with other bus network changes this would provide a reduction of approximately 220 buses.” The 180 figure appears to be achieved firstly by comparing a fully laden light rail with a partially laden bus (this is invalid and never justified in the EIS) and secondly by using a frequency of two minutes, not the three minutes proposed). It was confirmed to me by TfNSW staff during the EIS consultation that the traffic congestion modelling in the EIS is based on a three minute service. The actual capacity of the light rail at opening will be equivalent to about 100 buses. The fact that George St will be closed during the construction phase and TfNSW believes that the bus network can be redesigned to provide adequate capacity and performance without either light rail or George St being available also supports the conclusion that it is bus redesign not light rail which is delivering the benefits.

4 Benefit

The EIS use assertions from the Business Case relating to cost benefit. In the publicly released Business Case Summary it says that the majority of the economic benefits ($2.2 billion, or 57 per cent) result from public transport benefits related to faster, more comfortable, more reliable journeys (p9). It also claims “over $2 Billion in benefits for public transport customers” (p6).

The summary also claims 17% of demand for the CSELR will be “divert from car.” The EIS uses this projection as a basis for claiming that a range of potential adverse impacts, especially increased traffic congestion will be avoided. However, the basis for this important assumption has not been properly tested.

On 26th November, by email, I asked regarding the summary document:

> Is that all the information regarding cost benefit which is in the public domain? In particular are there a detailed breakdown of the benefits shown on pages 6 and 9 and the assumptions and methodology used? Also are there any details supporting the forecast that 17% of demand will be diversion from car users. Similarly, is there any breakdown of this number (peak to CBD, Moore Park events, UNSW etc) and explanation of the assumptions and methodology used?
> While I appreciate that some details of operational costs may be sensitive, the majority of the numbers relate to public benefit. The credibility of the project would be enhanced if these were properly explained.

After persisting with my enquiry over the following weeks, I was finally told that that the Summary was all that would be released.

Given that the actual net outcome for public transport customers seems marginal or even worse under this proposal (see elsewhere in this submission) the claims in the Business Case need to be open to proper public scrutiny.

4.1 Benefits to Public Transport Customers

The EIS and Business Case claim significant benefits to public transport customers. These claims are used to project significant transfer from car to public transport and a large ($2.2billion) benefit to users. Based on the information currently available:

- The cost of travel for many users as a result of the Project will increase.
- Overall journey time for public transport users will not improve significantly

(maybe worse).

- Overall convenience will be adversely affected by more changes per journey and less seating.

Given that the proposal does not increase the footprint or speed of public transport, there is no reason to conclude real world increase in patronage.

5. Bus services

The initial announcement of the project stated that 220 buses would be removed from the CBD but despite repeated requests for information no details were provided until the release of the EIS. During the EIS information sessions it was clear that the final plan could be vastly different to that in the document. The process is clearly driven by the need to free up scarce surface capacity in the CBD to fit the light rail and to force passengers to use the light rail to make it viable.

5.1 I oppose the removal of Metrobuses (M10, M50) from the East. These were introduced to provide cross-regional services avoiding interchange in the CBD. The CSELR does not provide this service.

5.2 I oppose the proposal to reduce other buses on the Foveaux/Albion and Cleveland St routes which would reduce the service in those areas.

5.3 The EIS states "About 50% of Inner West bus routes will terminate after stopping at the Rawson Place light rail stop and in Campbell Street north of Belmore Park."
This directly contradicts previous public information. *Sydney's Light rail Future* shows a much smaller reduction. On p15 of that document reasons for not splitting the CSELR project in two included:

> congestion around Central (created by transfer) between LR, bus and rail and forcing commuters to change modes

The EIS appears to ignore the adverse impacts including travel time of these changes which are driven by the loss of street capacity when George St closes.

5.4 A suitable, free bus service equivalent to the 555 should be maintained between Central and Circular Quay during construction.

6. Fare structure.

Opal policy is to charge separately for different modes. Transfer between bus and LR would incur an extra "flag fall" and the total cost would be greater than the equivalent journey by bus alone. This directly contradicts and undermines the strategy to use LR as a trunk service with bus feeders. During the consultation process I have tried repeatedly to clarify the position. On 9th April I emailed the TfNSW project team asking about the fare structure without receiving any meaningful reply. On 9th May I wrote to the Minister. My questions included:

-How will the fare structure (cost, not ticketing system) work for users? There are references in the documentation to the Opal Card. This covers "how we will pay" but not how the fares will be calculated. For example, for a single trip from La Perouse to the City (which will require a change from bus to light rail) will I be charged for a single journey or two separate components? Similarly how will this work for a journey from Kingsford to Strathfield (light rail and train)?

-Will the fare (or light rail component if there is not a single fare) be the same as the equivalent bus trip, train

trip or different from either?

-Will all concession types be recognised on the CBD and South East Light Rail? I understand some concessions (such as for students 19+) cannot be used on the current Light Rail network.

I received a response from The Hon John Ajaka MLC dated 9th July which stated that "Opal fare structures will be announced later this year." Despite writing to Mr Ajaka, and asking again during the EIS process these questions have not been answered. The current position is:

-Fares on the existing Light rail network are generally greater than for a similar bus trip.
-Opal fares are calculated separately for each mode trip of a journey.
- When the existing MyZone periodical tickets are removed in favour of Opal, there will be a financial incentive for existing regular commuters who transfer from bus to the heavy rail network to continue their journey to the CBD by bus contributing to CBD congestion.
-The current situation (where mode transfer is penalised) has constrained the efficient design and use of the network. The introduction of bus services like the 333 which directly compete with rail are evidence of this. I have overheard another passenger on a bus between Bondi and the CBD say that they did not transfer to the train at Bondi Junction because of the extra cost.

An exception to allow bus to LR transfer on this line only would not be an acceptable solution. There are several reasons for this.

1. This would fail to address the broader network implications.
2. It would add additional complexity to the Opal rules which are already confusing (e.g. what is the difference between a trip and journey?).
3.Exceptions can be removed. For example when the Eastern Suburbs rail was opened there were single journey bus-rail tickets for that area only. These were ultimately removed. Similarly the Opal Manly Wharf Express bus bonus will expire on 29 June 2014 and does not apply to any other bus service.

In the Minister's Message introducing *Sydney's Light Rail Future* she states "We are designing Sydney's light rail and bus networks together." In discussions with several Departmental representatives during the consultation process it is clear that the need for a mode agnostic fare structure (one in which the fare for the entire journey is independent of the mode or modes used and the number of transfers required) is well understood. This model is widely used and accepted in many comparable cities. The Minister noted in her message that the extension of MyZone and Pensioner Excursion tickets on the Lilyfied line resulted in a jump in patronage of 44%. However, the features of MyZone tickets which have driven this jump will be removed by Opal and not applied to this project.
The absence of a mode agnostic fare structure will severely undermine public acceptance of the proposed model encouraging continued use of bus services to access the CBD. The Project solution is the blunt instrument of cancelling popular bus routes. The inevitable outcome is customer dissatisfaction and loss of patronage. Either way the environmental outcomes of significant reduction in bus numbers and transfer from car to public transport, will not both be achieved.

The project should not be approved without a clear requirement to introduce a network-wide, mode agnostic fare structure.

Because the 555 bus will not be able to operate via George St the light rail should be free between Central and Circular Quay.

7. Alternatives

I submit that the EIS has not properly evaluated alternatives. These could include the redesign of the bus network possibly including better use of existing spare rail capacity on the Eastern Suburbs and City Circle lines to reduce bus volumes in CBD.

If the aim is to reduce buses entering the CBD other major routes including Broadway, Anzac Bridge and Sydney Harbour Bridge each contribute greater number of peak hour buses than the Anzac Parade corridor. They also lack the diversity of entry points to the CBD which characterises the routes from the South-East making them all better candidates for high density services. The fact that light rail has not been started on one of those routes first supports the conclusion that the CSELR is a project with short term goals, not part of a strategy for the future. A significant adverse effect of this project is that by over promising it is diverting financial and human resources and delaying the development of a strategy which can address the problems.

8 General Issues

8.1 Parking at Randwick stabling facility will include parking for 94 cars (section 5.2.10). If TfNSW believes there is a need to provide this number of car parking spaces on a facility directly serviced by the CSELR it must be inferred that the project has little prospect of attracting additional public patronage.

8.2 Use of Moore Park for event parking has long been a contentious issue. Despite the loss of parkland to the project, there appears to be no balancing plan to remove event parking after the construction of the CSELR. This belies the suggestion that the project will effect a meaningful decrease in car mode share.

8.3 Technical Paper1 Table 7-10: Rawson Place Precinct Access Plan states: "Estimated AM peak hour interchange patronage from bus to light rail is 635 (52%) in 2021." This seems too low if it is planned to terminate half the inbound Broadway buses here.

9 Surry Hills

The following issues have not been adequately addressed in the EIS.

9.1 Loss of parklands has not been adequately balanced. The return of unused parts of Olivia Gardens to public open space needs more clarification.

9.2 Devonshire St currently contains a large number of trees along a direct route between Prince Alfred Park and Moore Park. I have observed a possum in these trees near Waterloo St. It is possible that this path forms a migration corridor. The removal of 74% of trees in the area (EIS 13.6.2) would have a significant impact on this which has not been properly assessed.

9.3 An additional LR stop should be located east of Bourke St (Wimbo Park).

9.4 Ward Park is off-leash for dogs. This has safety and amenity issues for the adjacent light rail station. Dog excrement is an ongoing issue on the nearby footpaths.

9.5 I oppose the opening of Cooper St at Riley St. This will have adverse impacts on safety and air quality for the adjacent child care facility. This will be exacerbated by a potentially higher number of commercial vehicles (often diesel) associated with adjacent light industry, and drivers cruising in search of parking. Subject to suitable design, bicycle access may still be possible.

9.6 Parking
The Surry Hills parking occupancy figures e.g. in Technical Paper 1 figure 6.23 are not credible. They show areas of Riley, Tudor and Arthur Streets with occupancy of less than 85% between 10am and 2p.m. This is clearly based on outdated or otherwise inaccurate data. As a resident of this area I can confidently say that there is little free parking and any which becomes available is re-occupied very quickly. These streets are close to Devonshire St where significant parking will be removed. During the EIS consultation TfNSW staff acknowledged that newer studies were being undertaken. Unfortunately, the EIS uses this incorrect data to conclude:

"At the more local level, each of the sub-precincts is projected to retain sufficient capacity to accommodate parking demand displaced from the Project corridor within the immediate surrounding local area." (Technical Paper 1 table 6.2)

Increased competition for scarce parking will increase friction between competing uses and reduce the availability of short term parking. This is likely to have adverse impacts on the viability of commercial activity in the area.

9.7 For Surry Hills LR stop "Estimated AM peak hour interchange patronage from bus to light rail is 505 (57%) in 2021." (Technical Paper 1 table 7-12). This number seems improbable. In any case the distance between bus stops and LR stop and the narrowness of the Devonshire footpath will create pedestrian congestion if this number is accurate. There is no shelter on this route in wet weather.

9.8 Technical paper 1 Figure 3-11: 2021 AM Peak CSELR Boardings and Mode of Access by Light Rail Stop, seems to be incorrect for Surry Hills.

When I asked for clarification on this and similar matters during the EIS consultation I was told that there were known errors in the document. However, no updates or clarifications were issued. It is therefore impossible for the public to know what is a known documentation error and what is an improbable or incorrect statement which needs to be challenged.