

Cabinet Secretariat Reference	
Submission No.	MSSPC 17
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Submission to: Major and State Significant Projects Committee

Submission Title: East West Link – Tolling Strategy

Portfolio/s: Roads, Public Transport

SUBMISSION PROPOSAL

Recommendation:

That the Major and State Significant Projects Committee (MSSPC):

1. **Endorse** the following Future Tolling Principles informing the East West Link tolling strategy and setting of the tolls for Melbourne toll roads:
 - a. improve transport **outcomes** by optimising asset utilisation and balancing traffic flows across the transport network
 - b. maximise the **value** of toll revenue to secure the reliability, quality and saleability of the toll revenue stream, whilst ensuring that toll levels are reflective of the benefit obtained by the user and avoiding distortionary impacts.
2. **Agree** to the following initial areas for investigation:
 - a. Differential time of day tolling
 - b. Consistency in pricing structures between East West Link and CityLink
 - c. Introduction of an additional heavy vehicle class
 - d. Differential pricing for particular ramps or sections
 - e. Flexibility in pricing.
3. **Note** a further submission will be presented to MSSPC in early February 2014 for approval of the tolling strategy prior to negotiations with Transurban.

Objectives:

1. To seek MSSPC's endorsement of the Future Tolling Principles and areas for investigation in order to guide the detailed tolling strategy for East West Link (EWL) and commercial negotiations with Transurban in relation to the impact of EWL on CityLink and Project Zebra.

Key Issues:

Background

1. In April 2013, Budget and Expenditure Review Committee (BERC) agreed in principle that EWL (Stage 1) should be a toll road with the State retaining toll revenues and traffic demand risk at least until traffic volumes are proven. The EWL business case assumed an approach to toll pricing that was considered reasonable based on the scope of EWL and the current pricing regimes on Melbourne's existing toll roads. However, the ultimate toll pricing solution for EWL is still to be determined. Opportunities to refine the assumed toll in the business case may be available to further optimise the toll revenue available to fund EWL.
2. The approach being taken to the procurement of EWL, where the State retains the tolling function, has the advantage of the State being able to consider a range of policy opportunities that contemporary tolling provides. At the same time, the State is negotiating with Transurban in relation to Project Zebra, where the primary funding mechanism for the physical works is expected to be changes to the CityLink toll structure, along with additional toll revenue from the increase in capacity from Zebra works.
3. On previous toll roads in Victoria, toll setting was largely an outcome of the competitive bidding process. Importantly, in prior transactions it was not necessary to consider the "network" impacts of the proposed tolls as the projects were independent, with connections to non-tolled roads.
4. In the global toll road market, advances in transport policy and tolling technology have enabled a more sophisticated approach to be taken to toll setting. In particular, this has broadened the considerations from a financial focus in the context of a specific procurement, to demand management and network optimisation from a transport outcome perspective. In the Melbourne context, the EWL project will result in the establishment of a toll road network (rather than two independent and geographically separate roads) and therefore the consideration of a network tolling strategy is important.
5. Tolls on EWL and CityLink are not independent of each other in that the toll applied on one project can have a traffic impact and a corresponding financial outcome for the other (the physical scope of works and configuration for either project is also relevant to considering the impact on the other). For that reason, in setting a toll strategy for EWL and in finalising Project Zebra, it is important to consider the future tolls on both EWL and CityLink as part of an integrated tolling strategy. EastLink is geographically separated from EWL and the interdependence between the two projects is less significant. For this reason, changes to EastLink tolls in the short term are not being contemplated. However, flexibility will be retained to revisit EastLink tolls at a later date if required.
6. The EWL tolling strategy work needs to meet the short term imperatives of informing commercial negotiations with Transurban on EWL impacts and Project Zebra but also support planning for any medium term enhancements such as proceeding with further

stages of EWL and longer term future network developments and operations.

Future Tolling Principles

7. The following two Future Tolling Principles are proposed for informing the EWL Tolling Strategy and setting of the tolls for Melbourne toll roads. As noted above the initial focus of work is on EWL and CityLink, with EastLink to be considered later if needed.
 - a. Improve transport **outcomes** by optimising asset utilisation and balancing traffic flows across the transport network
 - b. maximise the **value** of toll revenue to secure the reliability, quality and saleability of the toll revenue stream, whilst ensuring that toll levels are reflective of the benefit obtained by the user and avoiding distortionary impacts.
8. Principle 1 rationale: Tolling provides a means to manage traffic and achieve better transport outcomes overall, and at different times of the day. Toll pricing can be an explicit network management tool rather than just a source of funding.
9. Principle 2 rationale: A toll revenue stream is more valuable to its owner (i.e. the State or potential future private sector owner/s) if it is stable and reliable. Setting the highest possible toll revenue return in the short term may not derive maximum value. In addition users must perceive value for the toll paid and tolls should reflect the service provided, including travel time savings, reliability and safety.
10. Satisfying these two Future Tolling Principles at the same time might not always be possible and trade-offs will sometimes need to be made. **Attachment 1** elaborates on the two Future Tolling Principles, the rationale behind and short, medium and long term implementation considerations.
11. The Future Tolling Principles represent a paradigm shift in the future setting of tolls and the operation of the road network in Melbourne. As noted, they guide the setting of tolls for EWL and potential changes to the tolls on CityLink as part of Project Zebra in the short term, but they also provide a strong policy platform for the future.

Initial Areas for Investigation

12. **Attachment 1** introduces a number of areas for more detailed consideration in setting a tolling strategy for EWL and also for tolling changes to CityLink as part of Project Zebra. MSSPC approval is sought to the following initial areas of investigation:
 - a. Differential time of day tolling
 - b. Consistency in pricing structures between East West Link and CityLink
 - c. Introduction of an additional heavy vehicle class
 - d. Differential pricing for particular ramps or sections
 - e. Flexibility in pricing.

Differential Time of day tolling

13. Differentiation between tolls at different times of the day is a means to manage asset utilisation by encouraging peak period users to consider travel choices, including choosing to change the time of the trip to a less busy period. Lower tolls in the non-

peak period can encourage greater use of the tolled road throughout the day, thereby maximising the value of the asset in the network. This also links to the quality of revenue objective with the toll price commensurate with travel time saving.

14. In Sydney time of day tolling was introduced on the Sydney Harbour Bridge and Tunnel to help ease congestion and to encourage motorists to travel outside peak periods. Examples of time of day tolls outside of Australia include the A14 Autoroute in Western Paris where differential tolls are levied in morning and afternoon peak periods of four and five hours respectively; and the New Jersey Turnpike with two hour peak periods in both the morning and afternoon.
15. Options are available concerning how time periods are differentiated, including peak/off-peak, peak/inter-peak/off-peak or day/night. While the transport model defines the morning and afternoon peaks as two hours each, in practice the peak period is much longer. Options assuming longer peak periods are being analysed.
16. In the EWL business case, tolls in the non-peak period were assumed to be 80% of peak period tolls for all vehicle classes (a 25% differential).
17. Currently tolls on CityLink only have a limited time of day adjustment. Both light and heavy commercial vehicle classes have the same trip cap as passenger vehicles at night (currently \$7.74 as compared to \$10.32 in the day – 6am to 8pm).
18. In order to improve the utilisation of CityLink it is proposed to consider more extensive time-of-day pricing.
19. A number of scenarios are being modelled based on a similar 25% differentiation between peak and non-peak on CityLink to that assumed in the EWL business case. One scenario involves increasing the current toll and cap by 1.25 in the peak periods. The second scenario involves a smaller 1.15 increase in the current toll and cap in the peak periods and a reduction to 0.9 of current tolls for the non-peak period.

Consistency between EWL and CityLink – Heavy Commercial Vehicle multipliers

20. In order to achieve a balanced network outcome between EWL and CityLink it is desirable to have similar pricing for comparable trips, particularly those that have a roughly equivalent choice between the two routes for longer journeys.
21. In setting base passenger car toll assumptions in the EWL business case, CityLink tolls were used as a guide for relativity. Commercial vehicle multipliers are, however, not consistent between the two projects. The below table details how the toll price multipliers on EWL compare to those on CityLink and EastLink.

	LCV	HCV
EWL (business case)	1.6	3.0
CityLink	1.6*	1.9*
EastLink (for comparison)	1.6	2.65

(* Note that current CityLink daytime toll caps for LCV and HCV are an effective 1.3 multiplier and night time caps are the same as passenger vehicles.)

22. It is understood Transurban proposed a City Link HCV multiplier of 2.65 as part of its initial Zebra proposal.
23. Scenarios are being modelled involving increases in the CityLink HCV multiplier to 3 in order to make it consistent with EWL. For each trip on CityLink, users are charged tolls up to a trip cap, which is the maximum toll for a single uninterrupted trip. The trip cap would also be increased in line with the increased multiplier and the current day/night differentiation in the toll caps would be replaced by the 25% differential of peak over off peak tolls assumed in the EWL business case. At current toll prices, and assuming the 1.25 peak period increase noted in paragraph 18 above, that would result in an increase in commercial vehicle trip caps as follows:

	LCV	HCV
Current CityLink trip cap - day	\$10.32	\$10.32
Current CityLink trip cap - night	\$7.74	\$7.74
Possible CityLink trip cap - peak	\$15.48	\$29.03
Possible CityLink trip cap – non peak	\$12.38	\$23.22

Note: Trip caps are GST inclusive (The effective cost borne by commercial users is ex GST)

24. As part of the traffic modelling of commercial vehicle behaviour, modelling is being undertaken to understand the likely reaction of trucks to a different price for the use of the road. Technically this is known as the ‘elasticity of demand’, that is, how sensitive is the road user to changes in costs.

Introduction of an additional heavy vehicle class

25. In order to plan for the future, preliminary consideration is also being given to the benefits of introducing a new vehicle class for High Productivity Freight Vehicles (HPFV). This very large class of truck enjoys very large benefits from motorway travel and imposes additional investment and maintenance costs on the network. This is a growing class of vehicles as regulations on their use are relaxed and enabling investment in strengthening certain sections of the road network is implemented.
26. There are a number of challenges that would be involved with introducing a new HPFV vehicle classification including; technology associated with tolling (based on the physical dimensions of the vehicle rather than its loaded weight), emerging policy changes in this area such as the Heavy Vehicle Charging Initiative and the inability of the current transport model to separately identify this class of vehicles (it was not designed with this distinction in mind).
27. It is unlikely that analysis of this policy change can be completed in the next 3 months. In the short to medium term this is not considered to be a material financial item, so is not a high priority for the negotiations with Transurban however, it is proposed to preserve options in this regard and include them in discussions with Transurban.

Differential pricing for particular ramps or sections

28. Another way to balance traffic flows across the network is to adopt differential pricing for one ramp or section of motorway. This could be achieved by situating tolling points on the ramps themselves, as opposed to arrangements where tolling points on a

motorway serve several access or exit points. For example, in order to balance the city bypass aspects of a project with traffic desire for city access, differential pricing on city access ramps could be applied. The Exhibition Street Extension is a simple example of pricing access for a city access ramp. In the case of EWL, differential pricing could be adopted for the Elliott Avenue and Ormond Road ramps or the EWL tunnel exit to Hoddle Street to regulate traffic using those ramps as compared to through journeys. The Tolling Project Team is considering the merits of such an approach either in the short term (from opening of EWL) or whether this is something that should be built into EWL with a view to implementing the differential pricing at a later date, such as when the western section of EWL is built.

29. Another example of potential differential pricing is to manage sections of the motorway network where there is traffic congestion. An example of that is the convergence of Western Link and the West Gate Freeway near the Bolte Bridge. This section was the subject of considerable works as part of the previous M1 Upgrade project and further works are being contemplated as part of Project Zebra. It is possible that in the future further infrastructure modification is unable to address the sheer volume of traffic in the area and that a price based solution could be appropriate. This could be considered as part of the discussions with Transurban on the physical scope of Project Zebra.
30. The approach of differential pricing will be included in discussions with Transurban in the context of Project Zebra, however, it is not expected that they will have a material financial impact in the short to medium term. This is more about starting a journey to make small incremental steps in this network management direction.

Flexibility of pricing

31. As discussed in the Future Tolling Principles above, the reliability of the toll revenue stream is important to consider, not just the immediate quantum of tolls. One way to enhance the quality of toll revenues is to preserve some flexibility to change the tolls in the event that actual traffic patterns do not match forecast traffic. This is a significant issue in toll roads in Australia (and internationally), given the recent financial distress experienced by toll roads in Sydney and Brisbane (and to a lesser extent with EastLink).
32. The approach being taken to procurement of EWL, where the State retains the tolling function, has the advantage of the State being able to have some flexibility to adjust tolls after opening in response to changing traffic patterns. This advantage is, however, offset by the desire to negotiate a financial outcome with Transurban for EWL and Project Zebra in early 2014. As noted previously, tolls on EWL and CityLink are interrelated so a financial outcome with Transurban will need to be based on an assumed set of tolls for both projects.
33. Preserving some flexibility for the State to amend tolls on CityLink might also be desirable from an asset utilisation and transport network outcome perspective in the future. Traffic modelling shows that even after the Western Link widening as part of Project Zebra, by around 2030 Western Link could again be suffering from congestion in peak periods. Further widening at that time might not be desirable or possible (at a

reasonable cost) so a pricing based solution might be more appropriate.

34. In negotiations with Transurban as part of Project Zebra it is desirable to include recognition of the potential to change tolls in the future as an asset utilisation optimisation approach.
35. Flexibility in pricing that enables a dynamic toll response based on network performance is also an option. An example is the Express Lanes on Interstate 495 in Northern Virginia, operated by Transurban, where toll prices vary according to real-time traffic conditions, rising and falling to manage the number of toll-paying customers. However as noted below due to the complexity of such an arrangement this is not proposed to be included in the initial scope of work.

Longer term areas for investigation

36. There are a number of other tolling related areas which could potentially be investigated but have been accorded a lower priority at this time, including
 - a. Interaction with EastLink. As noted in paragraph four the initial modelling suggests that the interaction of EastLink with EWL is less material than CityLink.
 - b. Integrated trip caps and dynamic tolling. The initial areas of investigation are necessary precursors for these more complex developments.
 - c. Multiple occupancy car tolls due to it being difficult to enforce. The impact on toll revenues is also difficult to predict.
37. Flexibility will be retained in the tolling strategy to revisit these areas at a later date.

Next Steps

38. Traffic modelling and financial analysis of scenarios based on the Future Tolling Principles and the particular matters discussed above are currently being modelled.
39. It is proposed an update be provided to MSSPC in early February 2014 with detailed modelling and financial analysis outcomes in order to inform a dialogue with Transurban.
40. To the extent that there are resultant changes to current tolls on CityLink, options can be developed for how the changes could be implemented, including a phased implementation as user benefits emerge, such as following significant widening events.

Risks:

1. The timelines for determining an EWL tolling strategy for the purposes of negotiations with Transurban are tight. Any delay could compromise the State's negotiating position.

Support/Criticism:

1. The decision to toll EWL has received both support and criticism from stakeholders. It is expected any changes to CityLink tolls would receive some criticism.

Terry Mulder, MP
Minister for Roads
Minister for Public Transport

Date:

FUNDING

Financial Implication Tables

REVENUE IMPACT	Departmental Estimate				
	2013-14 \$m	2014-15 \$m	2015-16 \$m	2016-17 \$m	2017-18 \$m
Revenue Impact¹					
- Taxes	0.000	0.000	0.000	0.000	0.000
- Reg. fees/charges	0.000	0.000	0.000	0.000	0.000
- other revenue ²	0.000	0.000	0.000	0.000	0.000
- other sources ³	0.000	0.000	0.000	0.000	0.000
Additional Revenue⁴	0.000	0.000	0.000	0.000	0.000

Note¹: As per 'Revenue from ordinary activities', statement of financial performance table in Budget paper No 4.
 Note²: Other revenue includes resources received free of charge, sale of goods and services and other revenue and revenue from other parties.
 Note³: Other sources include general-purpose Commonwealth grants.
 Note⁴: Additional revenue included in this table should be viewed as benefit paid to the Consolidated Fund.

APPROPRIATION IMPACT	Departmental Estimate				
	2013-14 \$m	2014-15 \$m	2015-16 \$m	2016-17 \$m	2017-18 \$m
Impact on Department's operating cost	0.000	0.000	0.000	0.000	0.000
Less offsets from:	0.000	0.000	0.000	0.000	0.000
- internal reprioritisation/existing funds					
- revenue retained ⁵	0.000	0.000	0.000	0.000	0.000
Net additional appropriation required by the Department.	0.000	0.000	0.000	0.000	0.000

Note⁵: Benefit retained by Department to offset cost, as per the revenue retention agreement. This may include Commonwealth Specific Purpose Payments.

ASSET INVESTMENT	Departmental Estimate					
	2013-14 \$m	2014-15 \$m	2015-16 \$m	2016-17 \$m	2017-18 \$m	TEI \$m
Total asset cost⁶	0.000	0.000	0.000	0.000	0.000	0.000
Less: funding from other sources ⁷	0.000	0.000	0.000	0.000	0.000	0.000
Net funding to Department	0.000	0.000	0.000	0.000	0.000	0.000

Note⁶: This should only include the capital costs. The associated recurrent costs (if any) should be identified in the 'operating impact' table, where typically the recurrent costs would include, depreciation and CAC.
 Note⁷: This includes trust funds such as BRV, RIDF, CSF and asset sales.

FUNDING ALREADY IN DEPARTMENT'S BASE						
	Departmental Estimate					
	2013-14 \$m	2014-15 \$m	2015-16 \$m	2016-17 \$m	2017-18 \$m	TEI \$m
Funding already in Department's base⁸	0.000	0.000	0.000	0.000	0.000	0.000

Note⁸: Explanation to be included regarding what figures are being referred to (i.e. the amount appropriated to the output or the amount within an output associated with a specific project or program, existing TEI should be identified for asset proposals).

DTF and the Department have agreed the financial implications and costings in this submission:

Yes **No**

IMPACT ASSESSMENTS

Social Impacts:

1. Enhanced transport networks, for both private vehicles and public transport, will facilitate improved mobility and access for all.

Family Impacts:

1. The project will create benefits for families through improved access to jobs and services.

Regional and Rural Victorian Impacts:

1. The project will provide more transport options and improved access to the Port of Melbourne in support of rural and regional economies.

Economic Impacts:

1. Enhancing the transport network will assist supply chain efficiency, business to business interaction and improve the competitiveness of the Victorian Economy.
2. Improved freight network capacity and efficiency will contribute to State productivity.

Regulatory burden, offsetting reductions and evaluation strategy:

Does the submission propose an increase in regulatory burden on the business or not-for-profit sectors that is likely to be 'material' as defined in the Victorian Regulatory Change Measurement (RCM) Manual?

Yes

No

Environmental Impacts:

1. The EWL project will achieve a number of outcomes, such as smoother traffic flow, improved access to employment and housing and more efficient public transport that will create a positive environmental outcome.
2. The EWL project will be developed in a manner that seeks to minimise any potential negative environmental impacts of construction, operation and traffic use.

Charter of Human Rights and Responsibilities Impacts:

1. The process will be managed to take account of relevant obligations and ensure that any recommendations to government are consistent with relevant responsibilities.