

STAGE 2 LIGHT RAIL COSTINGS

Background

This document provides revised cost estimates for the Light Rail Stage 2 (LRS2), given new information recently made public about both LRS1 and LRS2.

In the first instance, the ACT submission to the Joint Standing Committee for National Capital and External Territories (JSCNCET) revealed an initial cost estimate for Light Rail Stage2 (LRS2) of \$1.3 billion to \$1.6 billion. Second, Smart Canberra Transport (SCT) has completed a detailed analysis of the real costs of Light Rail Stage1 (LRS1), based on the ACT Budget for FY2018-19 which, for the first time, has published expected expenditures for LRS1 for FY 2017-18 through FY 2021-22.

Assumptions

The estimates for LRS2 of \$1.3 billion to \$1.6 billion are taken to be:

- for construction only (compared to \$707 million for LRS1);
- do not include the costs of borrowing, especially interest on loans; and
- do not include the ongoing costs for the operational period (nominally 20 years as for LRS1).
- The revised, detailed cost estimates for LRS1 are a valid basis of assessment of real costs for LRS2, given that it would be almost certain that the current consortium would be contracted for LRS2. The detailed cost estimates for LRS1 are presented in a technical paper of 15 pages, including 12 data tables. SCT would make a copy of the paper available upon request.

Discussion

Table 1 gives the revised costs for LRS1, following detailed analysis of new budget figures for LRS1 presented in the ACT Government Budget Papers for FY2018-19.

The main purpose of Table 1 is to show the derivation of LRS1 costs and to determine the ratio of the costs of operations (20 years) to total cost of construction plus the interest. The percentage is 39.9 per cent and is considered important and valid for application to LRS2.

It is necessary to point out here that expenditure figures for LRS1, as newly released in the ACT budget for FY2018-19, are the same as those estimated in the LRS1 Contract Summary, June 2016, and, therefore are seriously in doubt, not having been updated for at least two and a half years and, apparently, without any knowledge of costs that may be evolving under the LRS1 contract. When eventually known, LRS1 costs could well be significantly higher than shown in Table 1.

Table 2 shows the derivation of probable costs for LRS2, given the nominal estimates for construction only of \$1.300 billion to \$1.600 billion, about twice that for LRS1.

It develops a total cost for the project of from \$3.0 billion to \$3.7 billion.

This results in an annual Service Payment for each of 20 years of \$150 million to \$185 million, money that has to be found in the budget on top of the corresponding figure for LRS1 of \$76.5 million per annum.

Given an assumed, maximum number of passengers per annum for LRS2 of 6 million, the cost per passenger, would be from \$25 to \$31, through the 20-year operations period, and \$7 to \$9 thereafter until end of system life.

Given the possibility of significant increase in LRS1 project costs, those for LRS2 could be even higher than those developed in Table 2.

Conclusion

The LRS2 construction cost estimates of \$1.300 billion to \$1.600 billion do not appear to be justified in the ACT Government submission to the JSCNCET and are, therefore, recognised very much as preliminary estimates only of considerable uncertainty. Nor is there any clarification as to exactly what the estimates represent in terms of main components. They appear to be estimates only for construction and to not include the interest cost of borrowings, let alone the cost of 20 years of operations.

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Table 1			
Light Rail Stage1 (LRS1) - Real Costs		December 2018 prices	
R	Stage	Minimum \$M	[1] Notes
1	LRS1		
2	Basic Data		
3	Nominal cost of construction	706.7	[2]
4	Capital Contribution by ACT Gov	375.0	[2]
5	Capital to be recovered (20Y) via Service Payments	331.7	[3]
6	Refined estimates		
7	\$Cost-Part-Construction + \$Interest (3Y)	551.5	[4] [5]
8	\$Cost-Operations (20Y)	436.0	
9	\$Cost-Contract (23Y)	987.5	
10	\$Capital Contribution (ACT Gov)	375.0	
11	\$ Cost-Project (23Y)	1,362.5	
12	\$Cost-Opportunity of Capital Contribution (20Y)	167.0	[6]
13	\$Cost-Community (20Y)	1,529.5	[7]
14	\$Cost-Community pa	76.5	[8]
15	Relevant Percentage		
16	\$Cost-Construction + \$Interest (3Y)	1,093.5	R7+R4+R12
17	\$Maintenance & Operations (20Y)	436.0	
18	\$Community Cost (20Y)	1,529.5	
19	%[\$Operations/(\$construct cost + \$interest)]	39.9%	[9]
Notes:			
1. Cost estimates are minimums; real contract escalation yet to be revealed.			
2. Published costs			
3. Capital recovered under contract			
4. \$332M + real %Interest @5.42% pa			
5. Excludes \$CapContrib. Estimates from refined analysis of LRS1 costs			
6. %Real Interest Rate for Government loan assumed at 3% pa			
7. \$Project Cost + \$Opportunity Cost to ACT community			
8. \$Real Cost pa to Community (taxpayers) from budget.			
9. Important percentage for application to LRS2			

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Table 2					
Light Rail Stage2 (LRS2) - Real Costs			December 2018 prices [1]		
R	Stage LRS2	Data	Minimum \$M	Maximum \$M	Notes
1	Basic Data				
2	Nominal cost of construction		1,300	1,600	[2]
3	Capital Contribution		-	-	[3]
4	Capital to be recovered (20Y)		1,300	1,600	
5	Operations period (Years) - assumed	20			
6	Real Interest rate on capital borrowings	5.42%			[4]
7	Nominal Interest rate on capital borrowings	8.58%			[4]
8	Estimates				
9	Capital				
10	\$Interest-Real on borrowings		848	1,043	[5]
11	\$Cost-Construction + \$Interest		2,148	2,643	
12	Operations (20Y)				
13	%[\$Operations/(\$construct cost + \$interest)]	39.9%			[6]
14	\$Cost-Operations (20Y)		857	1,055	[7]
15	Capital + Operations				
16	\$Cost-Project (23Y)		3,005	3,698	
17	\$Service Payments pa (over 20Y)		150	185	[8]
	Cost per passenger				
	Passengers pa- Maximum - LRS1 (millions)	6.3			[9]
	Passengers pa- Maximum - LRS2 (millions)	6.0			[10]
	\$Cost-Passenger [through operations period]		25.04	30.82	
	\$Cost-Passenger [after operations period]		7.14	8.79	
	Notes:				
	1. All costs in December 2018 prices (mid-FY2018-19)				
	2. Taken from ACT Government submission to JSCNCET				
	3. Assumption: zero Capital Contribution by ACT Government (unlike for LRS1)				
	4. Nominal and real interest rates on borrowings; established from new data for LRS1.				
	5. At 5.42% real interest rate.				
	6. Determined in Table 1.				
	7. 39.9% of \$Cost-Construction + \$Interest				
	8. Service payments to be made from ACT Budget.				
	9. LRS1 Business Case figure				
	10. Assumed figure. LRS2 is considered less viable than LRS1, in respect to passengers.				

Smart Canberra Transport,
 Canberra
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