

**SMART CANBERRA TRANSPORT (SCT)**

**[CANBERRA CAN DO BETTER]**

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Smart Canberra Transport (SCT)  
PO Box 455  
Erindale Centre, ACT, 2903

2 July 2018

Committee Secretary  
Joint Standing Committee on the National Capital and External Territories  
PO Box 6021  
Parliament House  
Canberra ACT 2600

Committee Secretary

**ACT Light Rail Stage 2  
Submission # 2 by Smart Canberra Transport**

Smart Canberra Transport (SCT) made its initial submission to the Joint Standing Committee on the National Capital and External Territories (JSCNCET) on 31 May 2018. An email from the Inquiry Secretary of the JSCNCET on 27 June 2018, invited SCT to make a supplementary submission.

I trust this new information will be helpful in considerations by the Committee. I would be prepared to answer questions you may have or to meet with you to provide more information.

Yours faithfully

Max Flint  
Co-ordinator  
Smart Canberra Transport (SCT)

**Encl:** A. Supplementary submission by SCT to JSCNCET - Stage 2 Light Rail

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Max Flint is a retired senior officer of the RAAF, who is a qualified engineer and has a Master of Science Degree (Logistics Management with distinction). He was an acquisition manager of major capital projects in Department of Defence and for many years was a private consultant, specializing in support systems and life cycle costing for major projects.

## SUPPLEMENTARY SUBMISSION BY SCT TO JSCNCET - STAGE 2 LIGHT RAIL

### Background

This submission to the Joint Standing Committee on the National Capital and External Territories (JSCNCET) is supplementary to the initial submission by Smart Canberra Transport (SCT) on 31 May 2018. In the intervening period pertinent other information has become available that makes this supplement necessary.

In the first instance, the ACT submission to the JSCNCET revealed an initial cost estimate for Light Rail Stage2 (LRS2) of \$1.3 billion to \$1.6 billion. Second, 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.

The costings presented in Tables 1 and 2 herein supersede those contained in the initial submission by SCT.

### 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 14 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 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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The JSCNCET might ask the ACT Government to clarify what components comprise the estimates, in particular, whether they are for construction only and whether they include the interest cost of borrowings and the cost of 20 years of operations.

<b>Table 1</b>			
<b>Light Rail Stage1 (LRS1) - Real Costs</b>			<b>December 2018 prices</b>
<b>R</b>	<b>Stage</b>	<b>Minimum \$M</b>	<b>[1] Notes</b>
1	<b>LRS1</b>		
2	<b>Basic Data</b>		
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	<b>Refined estimates</b>		
7	\$Cost-Part-Construction + \$Interest (3Y)	551.5	[4] [5]
8	\$Cost-Operations (20Y)	436.0	
9	<b>\$Cost-Contract (23Y)</b>	<b>987.5</b>	
10	\$Capital Contribution (ACT Gov)	375.0	
11	<b>\$ Cost-Project (23Y)</b>	<b>1,362.5</b>	
12	\$Cost-Opportunity of Capital Contribution (20Y)	167.0	[6]
13	<b>\$Cost-Community (20Y)</b>	<b>1,529.5</b>	[7]
14	<b>\$Cost-Community pa</b>	<b>76.5</b>	[8]
15	<b>Relevant Percentage</b>		
16	\$Cost-Construction + \$Interest (3Y)	1,093.5	R7+R4+R12
17	\$Maintenance & Operations (20Y)	436.0	
18	<b>\$Community Cost (20Y)</b>	<b>1,529.5</b>	
19	%[\$Operations/(\$construct cost + \$interest)]	<b>39.9%</b>	[9]
	<b>Notes:</b>		
	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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<b>Table 2</b>					
<b>Light Rail Stage2 (LRS2) - Real Costs</b>			<b>December 2018 prices [1]</b>		
<b>R</b>	<b>Stage LRS2</b>	<b>Data</b>	<b>Minimum \$M</b>	<b>Maximum \$M</b>	<b>Notes</b>
1	<b>Basic Data</b>				
2	Nominal cost of construction		<b>1,300</b>	<b>1,600</b>	[2]
3	Capital Contribution		-	-	[3]
4	Capital to be recovered (20Y)		<b>1,300</b>	<b>1,600</b>	
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	<b>Estimates</b>				
9	<b>Capital</b>				
10	\$Interest-Real on borrowings		848	1,043	[5]
11	<b>\$Cost-Construction + \$Interest</b>		<b>2,148</b>	<b>2,643</b>	
12	<b>Operations (20Y)</b>				
13	%[\$Operations/(\$construct cost + \$interest)]	39.9%			[6]
14	\$Cost-Operations (20Y)		<b>857</b>	<b>1,055</b>	[7]
15	<b>Capital + Operations</b>				
16	<b>\$Cost-Project (23Y)</b>		<b>3,005</b>	<b>3,698</b>	
17	<b>\$Service Payments pa (over 20Y)</b>		<b>150</b>	<b>185</b>	[8]
	<b>Cost per passenger</b>				
	Passengers pa- Maximum - LRS1 (millions)	6.3			[9]
	Passengers pa- Maximum - LRS2 (millions)	6.0			[10]
	<b>\$Cost-Passenger [through operations period]</b>		<b>25.04</b>	<b>30.82</b>	
	<b>\$Cost-Passenger [after operations period]</b>		<b>7.14</b>	<b>8.79</b>	
	<b>Notes:</b>				
	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  
2 July 2018