

**For information  
4 June 2009**

**Legislative Council Panel on Transport  
Subcommittee on Matters Relating to Railways**

**West Island Line  
Assessment of Funding Gap**

**Purpose**

This note explains how the funding gap for the West Island Line (WIL) is assessed.

**Funding Gap calculation**

2. The WIL project is financially not viable. Government funding to bridge the funding gap is required to meet the strong public aspiration for the early implementation of the project. The funding gap is calculated as follows:

$$\text{Funding Gap} = \text{NPV}^1 \text{ of expenditure} - \text{NPV of revenue}$$

**Capital Cost**

3. Following the detailed design of the WIL, Government has engaged an Independent Engineering Consultant (IEC) to check the cost estimate prepared by the MTRCL and to ensure that the MTRCL has not over-estimated the cost and funding support required. A separate note has been submitted to explain the difference and a complete report of the IEC will be deposited with the LegCo Secretariat. The reasons for the cost increases are explained in Legislative Council Brief issued on 27 May 2009 for discussion in the Subcommittee on Matters Relating to Railways on 1 June 2009. The latest estimate of the project cost and the changes are shown below:

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<sup>1</sup> NPV denotes Net Present Value

Item		Estimate in LegCo Brief in Oct 2007	Latest Estimate in Feb 2009
(a)	Capital Cost	\$8.9B (Jan 2006 prices)	\$15.4B (Dec 2008 prices)
(b)	Funding Gap	\$6.0B (NPV at Jan 2007)	\$12.7B (NPV at Jun 2009)

### **Revenue from WIL**

4. The revenue of the WIL basically comes from fare and non-fare revenue. The non-fare revenue has been checked by the IEC and the fare revenue has been checked by HyD by conducting independent model runs using the Railway Development Study (RDS) computer model. The RDS model is a traffic forecasting tool used to derive passenger and fare revenue forecast of a railway network. The input assumptions including projected population and employment figures, fare structure, value of time, GDP data and so on. Such data takes into account the planned development including those brought about by the concerned railway project.

5. The project population and employment data are derived by the TPEDM (Territorial Population and Employment Data Matrix) prepared by the Planning Department. The fare structure will be modelled from the existing fare table of the MTRCL. The value of time is based on the findings of the Travel Characteristic Survey 2002 while the GDP data is based on the information from Government Economist.

6. In the running of the RDS model to derive the passenger and revenue, the whole MTR network has been taken into consideration so as to derive the increased patronage and revenue.

7. A sample set of model run showing the projected patronage will be

deposited with the LegCo.

8. The IEC has also checked that the non-fare revenue has not been under-estimated.

### **Difference in the Contribution by MTRCL**

9. In calculating the current proposed funding gap and contribution by MTRCL, both the NPV of expenditure and NPV of revenue have been recalculated using the latest figures.

10. We have explained in our submission to the LegCo Subcommittee on Matters Relating to Railways on 1 June 2009 that the escalation in cost and increase and scope of works has contributed to the expenditure side. As for the revenue side, there is a decrease in projected values. With the Rail Merger taken place in 2007, there was a series of fare reduction, including: (a) abolition of second boarding charge, (b) a general fare reduction of \$0.2 for all journeys, (c) long distance journeys with fare at or above \$12 will be further reduced by \$1; and (d) a minimum 5% reduction for medium distance journeys with fares from \$8.50 to \$11.90. The MTRCL had also committed not to increase the MTR fares for up to 24 months. This has led to a lower base in calculating the fare revenue for the 50-year operation period for the WIL. Such fare reduction, which took effect in December 2007, had not been taken into account when the original project cost estimate for the WIL was prepared in October 2007. On the other hand, the increase in population and employment projection for 2016 according to the latest forecast will slow down from 207,000 to 198,000 and this also has impact on the RDS model forecast.

11. With the increase in expenditure and decrease in the revenue side, we have come up with the increase in the funding support for the WIL.

12. As we have informed the LegCo Subcommittee on Matters Relating to Railways on 1 June 2009, we will introduce a claw-back mechanism. The funding gap will be reassessed within two years after commenced operation of the WIL. Any over-estimation of the contracts leading to over-assessed funding support, if any, will then be returned to Government with interest. In case of overshooting in expenditure, the excess will be borne by MTRCL. So, the MTRCL will have to bear the risk of further cost overrun. In the proposed assessment of the funding gap, there are assumptions of the railway patronage increase due to the implementation of the WIL. In case the actual increase in patronage is lower than projected, the risk will have to be borne by the MTRCL as well.

13. Members are invited to note the contents of this paper.

**Transport and Housing Bureau**

**June 2009**