

Legislative Council Panel on Transport

**Subcommittee on matters relating to the
implementation of railway development projects**

MTR Penny's Bay Rail Link – Project Agreement

INTRODUCTON

At the special meeting of this subcommittee held on 22 July 2002, Members requested MTR Corporation Limited (MTRCL) to provide additional information on the fare level of PBRL rail service, and the estimated additional revenue induced by the Penny's Bay Rail Link (PBRL) to the rest of the MTR network. A letter dated 24 July 2002 from the Project Director of the MTRCL to the Acting Secretary for the Environment, Transport and Works is attached at the Annex.

PROJECTED CAPITAL COST OF THE PBRL

2. The capital cost is estimated to be \$2 Billion. This represents a 23% reduction from the original capital cost estimate of \$2.6 Billion. As we have informed this Subcommittee earlier, the estimate has taken into account the current economic situation, the recent deflationary trend, various cost-saving measures initiated by MTRCL and we believe that it is a realistic estimate of the construction cost.

3. The construction costs of different railway projects are subject to various varying factors such as length, design, physical constraints etc, and are therefore not completely comparable. Nevertheless, a comparison between the PBRL and Tseung Kwan O Extension shows that the PBRL cost estimate is within reasonable range, bearing in mind that the design, construction and material used in the PBRL project must be commensurate with the standards of the Hong Kong Disneyland :

| <u>Comparison between Tseung Kwan O Extension (TKO) and Penny's Bay Rail Link (PBRL)</u> | | |
|--|----------------------|-------------|
| | <u>TKO Extension</u> | <u>PBRL</u> |
| Length | 12.5 km | 3.5 km |
| Number of stations | 5 | 2 |
| Cost | \$18 Billion | \$2 Billion |

ESTIMATED INTERNAL RATE OF RETURN

4. The internal rate of return (IRR) is 11.25%. This is estimated based on the weighted average of MTRCL's cost of debt and cost of equity, and is comparable with the IRRs of other transport infrastructure projects such as toll tunnels.

5. The Western Harbour Crossing Ordinance and the Tai Lam Tunnel and Yuen Long Approach Road Ordinance provide for a specified

toll adjustment mechanism for the Western Harbour Crossing and Route 3 respectively. According to the mechanism, if the net revenue of a particular year is lower than the range specified in the Ordinance, the franchisee can effect a toll increase under the law. The schedule of minimum and maximum net revenue reflects what the Legislative Council accepted as a band of reasonable but not excessive IRR. For WHC, it ranges between 15% and 18.5% whilst for Route 3, it ranges between 13.75% and 17.08%.

FARE ASSUMPTIONS AND INCREMENTAL REVENUE FROM USAGE OF EXISTING NETWORK

6. We expect that there will be around 5.5 million visitors to the Hong Kong Disneyland in the opening year. They will form the bulk of passengers on the PBRL. Other theme park visitors include tourists staying at the hotels in the Hong Kong Disneyland and employees of the theme park and other associated facilities. Altogether, they will form the overall market, of which we expect 30-40% will be travelling on PBRL.

7. It is anticipated that most people travelling on PBRL will begin their journey outside Lantau Island. They will travel on other MTR lines to reach Yam O and from there to Hong Kong Disneyland on PBRL. The additional fare revenue induced by passengers travelling from other parts of Hong Kong to Yam O has already been taken into account when arriving at the funding gap of \$798 million.

8. The range of the one-way fare from Yam O to the theme park is likely to be between \$5 to \$7.5. The exact fare will be determined by the MTRCL before the commissioning of the rail. MTRCL will set its fares on PBRL taking into account factors like the economic condition, passenger affordability and market competition at the time of commissioning of the rail link.

9. Passengers travelling to Penny's Bay from other parts of the MTR network will be paying more than \$5-\$7.5. This is because of the greater distance travelled. Therefore, it is reasonable to assume that induced fare revenue on other MTR lines will contribute more to the total fare revenue than just the fare revenue collected from travelling on the PBRL.

10. In 2001, MTRCL collected on average about \$6.8 from each passenger. This is equivalent to the present adult Octopus fare between Tsim Sha Tsui and Mei Foo or Sheung Wan to Chai Wan. For comparison purpose, existing Octopus fare from Tsimshatsui to Tsing Yi \$8.2, from Admiralty to Tsing Yi is \$11.8.

CONSTRUCTION PROGRAMME

11. As we have emphasized previously, the construction programme of PBRL is very tight. MTRCL has already identified contractors for the Tai Yam Teng Tunnel and Yam O Station contracts which are on a critical path. The award of these two contracts has already been deferred due to the deferral of execution of the Project Agreement.

This project involves a total of over 10 contracts. Delay of these two contracts will have an adverse impact on all of the remaining contracts.

12. More importantly, as the PBRL is an integral part of the overall Hong Kong Disneyland development, there are a lot of interface issues between the PBRL works and the works now being carried out by Civil Engineering Department (CED) for the Hong Kong Disneyland development. Some of their works are actually carried out on the same piece of land but during different periods of time. If these MTRCL contracts are delayed, there may be cost and timing implications on the related CED works.

Environment, Transport and Works Bureau
24 July 2002

Our Ref. PJD/RAE/18

Date 24 July 2002/7/31

BY FAX & POST

(2840 1528)

Mr. Stephen Lam, JP
Acting Secretary for Environment, Transport and Works
(Transport and Works)
Environment, Transport and Works Bureau
3rd Floor
Main Wing,
Central Government Offices
Lower Albert Road
Hong Kong

Dear Mr Lam,

Penney's Bay Rail Link (PBRL)

LegCo Transport Panel Questions

The Corporation's response to questions raised by the LegCo Transport Panel are as follows :-

1. **Basis of the capital cost estimate (HK\$1,978m money of the day)**

The estimate has been prepared based upon the Corporation's current as delivered level of costs for the Tseung Kwan O Extension Project. The costs for PBRL have been built up from a professional consideration of the individual civil and structural elements of the project together with all the various electrical and mechanical system that make up the railway.

The project cost have been subject to detailed examination by the Railway Development Office of the Highways Department and have been agreed with them after a lengthy discussion, as being reasonable and appropriate in the current market conditions taking into account the Tsuen Kwan O experience. The Railway Development Office also has West Rail and Ma O Shan costs for reference.

Whilst a cost comparison between any two railways suffers from a wide variety of dissimilar circumstances the estimated cost for the relatively low capacity 2-station PBRL is approximately HK\$600 million/route kilometre and for the expected outturn cost for the heavy duty 5-station Tseung Kwan O Extension, now in the final completion stage, is approximately HK\$1,450 million/route kilometre.

2. Fares

The Corporation's financial viability assessment, agreed by Government and its financial advisors, for PBRL is based, for viability purposes only, on Yam O Station to Disney Station likely fare range of HK\$5.00 to HK\$7.50.

The Corporation will decide on the actual fare much closer to the opening date based upon economic circumstances, the market situation and affordability at the time.

3. Project internal rate of return

As a listed company with public shareholders it is vital that Corporation can demonstrate that it can produce a commercial return on its railway projects. At the time of the listing of the Corporation, the prospectus stated that, in order to compensate the Corporation for the risks inherent in the relevant railway project, the Corporation will require these returns to be at a suitable commercial margin over its costs of capital. The prospectus also stated that, in this connection, Government recognised this would originally be between 1% and 3% above the estimated weighted average cost of capital of the Corporation. The PBRL project was specifically mentioned in the prospectus as a project for which the Corporation needs to ensure a commercially acceptable rate of return and that Government would be identifying ways of filling any funding gap. The prospectus also noted that the Government has agreed that it will not require the Corporation to construct and operate any future railway project without the Corporation's agreements.

The PBRL project's expected internal rate of return is 11.25% and has been extensively discussed and negotiated with Government. A company's weighted average cost of capital is calculated by reference to the company's cost of equity and cost of debt on a weighted basis. Government has advised the Legislative Council (paragraph 9 of CB(1) 227901-02(01)) that, as a listed company with public shareholders, the Corporation's weighted average cost of capital is a commercially sensitive figure and, accordingly, cannot be disclosed. However, we confirm that the Corporation's expected internal rate of return 11.25% for the PBRL project falls between 1% and 3% above the Corporation's estimated weighted average cost of capital.

4. Derivation of funding gap of HK\$798 million (at net present value)

The funding gap of HK\$798 million (at net present value) was derived by calculating the shortfall resulting from discounting the cash flows from the Project, over the expected life of the project, at 11.25%. The cash flows from the Project include cash outflow from, inter alia, (i) capital costs, (ii) future asset replacement cost and (iii) annual operating costs, and cash inflows from, inter alia, (iv) revenues (including fare revenues and non-fare revenues such as advertising).

5. Programme

Government require the railway to open to public service by 1 July 2005. To achieve delivery of an operational railway in 34 months time it is essential that contracts for the construction of Yam O Station and the Running Tunnel be awarded immediately, which in both cases will be later than the Corporation's desired programme. Further electrical/mechanical contracts must be awarded in August and September. Any delay will render the 1 July 2005 completion date unachievable.

The Tunnel and Yam O Station contracts have been ready to award for some time with both renders currently being held on letters of intent. The tender prices are for a contract programme of fixed duration. As the award date is accumulating delay the completion date is also being delayed correspondingly.

6. Incremental revenue from usage of existing network

Consistent with the practice applied in the financial viability assessment of all railway extension investments, the incremental ridership and hence revenue across the whole of the MTR network is taken into account and credited to the benefit of the extension.

Therefore for PBRL all additional revenue throughout the network that is generated by adding the PBRL to the network has been included in the viability assessment.

It is expected that most passengers on the PBRL will also use some part of the existing network and therefore the majority of the fare revenue will actually be earned on the existing network.

Yours sincerely,

R.J. Black
Project Director

c.c. Secretary for Financial Services & the Treasury
Deputy Secretary for Financial Services & the Treasury