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28 April 2005

The Hon Lau Kong-wah JP  
Chairman of Subcommittee to Study the  
Eastern Harbour Crossing Ordinance  
(Amendment of Schedule) Notice 2005  
Legislative Council  
8 Jackson Road  
Central, Hong Kong

Dear Chairman,

**Subcommittee to  
Study the Eastern Harbour Crossing Ordinance  
(Amendment of Schedule) Notice 2005**

I refer to your letter of 26 April 2005. The information requested is set out below.

**(a) Why IRR on equity was selected as a means to measure the reasonableness of the company's remuneration but not other approaches, including the suggestion from Dr Raymond So.**

The Internal Rate of Return on Equity is commonly adopted to measure the rate of return for "Build, Operate and Transfer (BOT)" projects, including the Eastern Harbour Crossing (EHC). This calculation takes into account the time value of money throughout the life of the project. Similarly, IRR on equity was adopted in drawing up the toll schedules for the Western Harbour Crossing (WHC) and Route 3 (Country Park Section). In the 1997 arbitration, the Government and New Hong Kong Tunnel Company (NHKTC), as well as their expert consultants, agreed that the IRR on equity over the life of the franchise was an appropriate yardstick to measure the reasonableness of the remuneration of a company engaged in a BOT project.

**(b) The Administration's assessment on the reliability and accuracy of the**

**financial and traffic information prepared by the company for the purpose of the toll increase.**

We have checked the financial information prepared by the NHKTC for the purpose of the toll increase to ensure the accuracy of the financial data. The traffic and financial projections adopted for the purpose of the toll increase were also agreed by the traffic and financial consultants engaged by both the Government and NHKTC.

**(c) The Administration's comment on the letter from the Democratic Alliance for Betterment of Hong Kong dated 25 April 2005.**

Our responses to the issues raised in the letter are as follows: -

- 1.1 It would be more appropriate for NHKTC to address this question.
- 1.2, 1.3, 1.4 The determination of the IRR was not specified in the Operating Agreement. However, the need to consider the IRR arose when the issue of toll increase was examined and submitted to arbitration in 1995-97. In considering whether the return to NHKTC was reasonable but not excessive, it was agreed that the yardstick should be the IRR on equity over the life of the franchise.
- 1.5 In the current arbitration, the arbitrators concluded that the level of reasonable but not excessive remuneration for NHKTC should be an IRR on equity of 15-17% over the life of the franchise
- 2 We have engaged financial experts in both arbitrations. In the 1997 arbitration, our financial expert was Mr Roger Best of Deloitte Touche Tohmatsu. In the current arbitration, we engaged Deutsche Bank AG, with Mr Iain Macleod leading the team. Both experts have examined in detail the calculation of the IRR on equity of NHKTC for the purpose of the arbitrations.
- 3 We have regularly checked the financial data of NHKTC and found them to be in order.
- 4 It would be more appropriate for NHKTC to address this question.
- 5 It would be more appropriate for NHKTC to address this question.

**(d) Details of the Administration's assessment on the traffic impacts on the**

**three road harbour crossings upon the toll increase of the EHC.**

The average daily traffic flow in 2004 at the Cross Harbour Tunnel (CHT), WHC and EHC were 121,700 vehicles/day, 39,200 vehicles/day and 73,500 vehicles/day respectively. We estimate that the toll increase at EHC would reduce the traffic throughput at EHC by about 17% (12,500 vehicles/day), increase the throughput at WHC by about 21% (8,400 vehicles/day) and at CHT by about 3% (3,800 vehicles/day).

It should be noted that since human behaviour cannot be predicted in very accurate terms, this estimate is no more than a rough projection in broad terms of the likely reaction to the toll increase. The actual impact can only be seen some time after the toll increase. Our estimate is mainly based on the following:-

- (a) When EHC last raised its tolls in 1998, its throughput decreased by 15,000 vehicles/day.
- (b) The throughput at CHT has reached its practical maximum, and there is little scope for CHT to take up more traffic especially during the peak hours. The increase of 3,800 vehicles/day would mean longer vehicle queues, extension of the peak period and increase in traffic volume at the less heavily used period.
- (c) Some motorists from EHC (e.g. those to/from the New Territories) might be diverted to WHC instead of CHT due to the longer journey time at CHT. Separately, traffic diverted from EHC to CHT might also displace those motorists originally using CHT, and some of them might be diverted to WHC. When EHC last raised its tolls in 1998, over 70% of the traffic diverted from EHC went to WHC. This is the basis of our current estimate.
- (d) EHC's toll increase might suppress cross harbour traffic because some motorists might change to public transport or cancel the vehicular trips. We estimate this might lead to a slight reduction in the total cross harbour traffic by less than 1,000 vehicles/day.

We will closely monitor the actual traffic situation and take appropriate measures to tackle the traffic problems arising from the toll increase.

- (e) **The Administration's response to a member's suggestion of diverting some franchised buses operating at Cross-Harbour Tunnel to other road harbour crossings, and providing convenient interchange arrangements**

**for affecting passengers as from 3 May 2005 onwards.**

Transport Department has discussed the proposal with Kowloon Motor Bus (1933) Co. Ltd, Citybus Limited and New World First Bus Services Limited operating cross harbour bus routes at CHT. Taking into account the bus companies' views, the suggestion is considered undesirable both from the bus passenger and operation viewpoints due to the following reasons -

- (a) Each cross harbour bus route operating at CHT serves different passenger catchment with different routeings, and bus stops at the cross harbour tunnel portal are fully used by a great number of passengers each day for interchange with Kowloon Canton Railway East Rail or other cross harbour bus routes. If selected bus routes are diverted to use WHC or EHC, passengers using these routes may need to interchange with other public transport services to get to their destinations. Such arrangement will cause detour and delay to the passengers with lengthened journey, more interchanges and in some cases higher transport fare resulting in serious inconvenience and confusion. At the same time, it will reduce the operational efficiency of the bus network as bus companies will require extra buses to operate the services;
- (b) The proposal will have significant traffic impact. As CHT is centrally located on both sides of the harbour, the diverted bus routes to EHC or WHC or additional public transport services to cater for the need for interchanges will have to route via the congested roads that linked to CHT, e.g. Gloucester Road and Island Eastern Corridor on Hong Kong side and the East Kowloon Expressway on Kowloon side that are already very congested during peak hours, in order to transport passengers to the same places. While it is uncertain whether journey time could be saved given the route diversion and the need for more interchanges, this arrangement will aggravate the traffic congestion on busy roads in Hong Kong;
- (c) New pick up and set down points have to be arranged for the diverted bus routes via other harbour crossings. This will cause confusion to the passengers on where to board or alight. If the diverted bus routes have to share the existing bus stops of other bus routes, the capacity of the existing bus stops may not be able to absorb the increased pick-up and set-down activities and may create congestion; and
- (d) It takes time for passengers to change travel behaviour and get

acquainted with the new bus stops or interchange arrangements. Extensive consultation is required for a major bus reorganisation exercise.

In view of the above, we consider that the scope of re-routeing bus routes away from the CHT is very limited. The re-routeing may result in missing bus link, much longer journey time, more congestion in busy corridors and less efficient use of bus resources. The bus companies will try to use a less congested harbour crossing for empty dispatch trips (i.e. those trips that do not carry passengers on board). We will closely liaise with the bus companies on the traffic situation in the first few days after the implementation of EHC toll increase, so that the bus companies could make necessary bus deployment to meet the cross harbour passenger demand.

Yours sincerely,

(Ms Annie Choi)  
for Secretary for the Environment,  
Transport and Works