

LCQ1: Toll collection system for tolled tunnels and roads

Following is a question by the Hon Chan Kam-lam and a reply by the Secretary for Transport and Housing, Ms Eva Cheng, at the Legislative Council meeting today (May 4):

Question:

Given that there have been comments that as motorists may make toll payments for tunnels and roads only by Autotoll or in cash at present, it is inconvenient to them and results in longer time for cars to pass through the toll booths, will the Government inform this Council:

(a) whether it knows the current number of Autotoll accounts, and the percentage of vehicles paying by Autotoll in the total number of vehicles using these tunnels and roads in each of the past five years;

(b) given that the authorities have indicated that they keep an open mind about and encourage the introduction of new toll collection systems for tunnels and roads, whether the Government has discussed with the Octopus Cards Limited the payment of tolls by Octopus cards; if it has, of the progress; if not, the reasons for that; and

(c) whether the Government or tunnel operators had conducted any survey in the past three years to obtain the views of tunnels and roads users on the means of toll payments; whether they had conducted a feasibility study on accepting toll payments by Octopus cards; if they had, of the outcome of the study; if not, the reasons for that?

Reply:

President,

Both manual and automatic toll collection lanes are available in all tolled tunnels and roads in the territory for motorists to pay the toll fee either in cash or electronically. The first automatic toll collection system in Hong Kong was installed by the Autopass Company Limited at the Cross Harbour Tunnel and Aberdeen Tunnel in August 1993. The Electronic Toll Limited then installed another automatic toll collection system at the Tate's Cairn Tunnel in September 1995, and the Shing Mun Tunnels and Tseung Kwan O Tunnel in October 1997. As "Autopass" and

"Electronic Toll" were two different systems and were designed separately, if motorists needed to use the tunnels installed with different automatic toll collection systems, they had to apply for two electronic tags and pay administration fees to both companies. This was inconvenient to motorists. Since October 1998, the automatic toll collection systems of all the tolled tunnels and roads have all adopted the "Autotoll" automatic toll collection system.

To subscribe to the "Autotoll" service, a vehicle owner is required to open an account with Autotoll Limited and display a tag containing information of the vehicle concerned on his vehicle. Vehicles with such a tag need not stop at the toll booth, and the tunnel or road tolls are deducted from the users' account by the toll system management company.

My reply to the three parts of the question is as follows:

(a) There are currently nine tolled tunnels, namely, the Cross-Harbour Tunnel, Eastern Harbour Crossing, Western Harbour Crossing, Lion Rock Tunnel, Aberdeen Tunnel, Shing Mun Tunnels, Tseung Kwan O Tunnel, Tate's Cairn Tunnel and Tai Lam Tunnel, and two tolled roads, namely the Lantau Link and the Tsing Sha Highway (Sha Tin - Cheung Sha Wan Section) in Hong Kong. All of them are equipped with the "Autotoll" automatic toll collection system. According to the information provided by Autotoll Limited, there are currently about 250,000 Autotoll tags in circulation. Between 2006 and 2010, the annual number of vehicles using the "Autotoll" system represents about 40% to 60% of the total traffic flow of individual tolled tunnels and roads. The average utilisation rate of the "Autotoll" system remained at about 50% over the past five years. The utilisation rate of the "Autotoll" system at individual tolled tunnels and roads has been circulated to Members at Annex for reference.

(b) and (c) Vehicles using the "Autotoll" system can save time by not having to stop at the booth to pay the toll. Compared with manual toll collection, the "Autotoll" system can enhance toll collection efficiency at tolled tunnels and roads and is beneficial to the management of tunnel portals.

The Government keeps an open mind about introducing new toll collection systems for tunnels and roads. We have been discussing with the Octopus Cards Limited (OCL) on the introduction of a Octopus toll collection system for tunnels and roads, and studying the technical feasibility of its proposed toll collection system. In considering the introduction of a new automatic toll collection systems for tunnels and

roads, apart from providing another alternative for motorists to pay tolls, we need to explore the technical feasibility of such a system (such as the interfacing of the proposed system with the existing toll collection system of the tolled tunnels and roads) and other relevant factors, including whether adoption of a Octopus toll collection system can enhance toll collection efficiency, achieve a smoother traffic flow at the tunnel portals as well as its cost effectiveness.

Further to the discussions between the Government and OCL in recent years, the preliminary proposal made by OCL is that its toll collection system would adopt a "stop-and-pay" mode, that is, motorists would need to stop the vehicle at a toll booth and place the Octopus card at the card reader to effect payment. This is similar to a "semi-automatic toll collection system". We have explored with OCL the technical feasibility of installing its proposed Octopus toll collection system at existing tolled tunnels and roads. OCL considered that Octopus card readers and associated software need to be installed at the existing toll collection system and interfacing problems between the Octopus system and the existing toll collection system would need to be resolved to ensure that the new toll collection system will not affect the operation and reliability of the existing one. OCL's preliminary conclusion is that the proposed system should be technically feasible.

However, apart from technical feasibility, we also need to consider the cost-effectiveness of the relevant proposal. Under the payment mode proposed by OCL, toll collectors still need to manually select the appropriate toll for each vehicle according to its vehicle category. Therefore, there might not be much manpower savings. Besides, as a motorist still needs to stop the vehicle and present the Octopus card for payment, there may only be slight, if any, improvement to the vehicular flow at the tunnels. Furthermore, there might be unnecessary delays when a motorist's Octopus card does not have sufficient balance. If the toll collection system proposed by OCL were to be adopted, OCL will charge the costs of purchasing and installing the relevant Octopus facilities, as well as the administration and maintenance fees for operating the system. Whether the relevant expenditure is cost-effective requires further study. The Government will continue to explore the above issues with OCL.

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