

香港特別行政區政府
The Government of the Hong Kong Special Administrative Region

政府總部
運輸及房屋局
運輸科
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(By Fax: 2121 0420)

Ms. Joanne Mak
Clerk to Panel
Legislative Council Secretariat
3/F, Citibank Tower
3 Garden Road
Central
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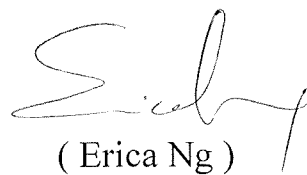
Dear Ms. Mak,

At the meeting of the Legislative Council Panel on Transport on 2 June 2011, Members discussed the Administration's proposal to install radio re-broadcasting system for Digital Audio Broadcasting (DAB) at 11 government road tunnels. Regarding Members' request to the Administration to provide information relating to the implementation timetable and on the installation of installation of radio re-broadcasting system for DAB service at private and "Built-Operate-Transfer" (BOT) tunnels, we have set out our response in the paper seeking the Finance Committee's approval for funding to implement the proposal (Ref: FCR(2011-12)32). In respect of Members' request to the Administration to provide information regarding the provision of radio reception services along railways of the Mass Transit Railway Corporation Limited (MTRCL) for emergency broadcasts, the relevant information is set out in the ensuing paragraphs.

It is a highly complex task to provide coverage for radio signals or the future DAB services inside new railway tunnels and stations. The complexity of the design of such a signal system cannot be compared to that for ordinary road tunnels. Road tunnels consist of basically two linear tubes and to provide radio coverage inside the tunnel tubes involves a simpler and more straightforward design. As regards the provision of radio coverage inside rail tunnels for passengers, it is necessary to consider the impact of the crowded environment inside a train compartment and the structure of the compartments on the signals. Most underground railway stations are multi-levelled structures, and may also consist of many long passages and exits connecting to the concourses and platforms. For radio signals to reach every corner of a station, the source signals will have to be split many times for onward transmission to all levels and various parts of stations and passages, resulting in substantial signal attenuation during the process. Therefore, to provide adequate coverage of radio broadcasts or future DAB signals to all levels and various parts of the connecting passages inside a station involves a complicated signal transmission system.

As the frequency channels allocated for radio broadcasts and future DAB services has not been used in the MTR network, further investigations and on-site tests are required to understand and master the technology involved. At the present stage, MTRCL has been exploring with the service operators and through on-site testing the technical feasibility of providing the relevant radio coverage. Preliminary tests have shown that the performance of the existing signal distribution system is less than satisfactory. Technically speaking, it might be necessary to install a separate signal distribution system specifically for broadcasting digital signals to improve reception quality. MTRCL will continue to discuss with the relevant service operators in this regard.

Yours sincerely,



(Erica Ng)

for Secretary for Transport and Housing