



Transport Department

The Government of the Hong Kong Special Administrative Region

Transport Department

Feasibility study on trolleybus system completed

The Transport Department has completed the Feasibility Study on Introducing Trolleybus System in Hong Kong.

The Study concludes that there are important technical and operational issues concerning trolleybus operation in busy urban areas and in tunnels which taken together, present important risks for introducing trolleybus operation in these areas. These issues include vertical clearance of overbridges and trolleybus speed, potential traffic delays, removal and relocation of hanging signs, maintenance of fire fighting access in the narrow streets of Hong Kong, and problems with the siting of depots, traction poles, underground feeder cables, etc.

"Financial viability and higher fares are also a key problem. A trolleybus system requires heavy capital investment. Trolleybus services will have to charge higher fares than diesel bus fares," a Transport Department spokesman said today (June 19).

"The trolleybus fare premium may be as high as 24% to 65% in order to achieve financial viability."

The Study noted that trolleybuses can bring improvements to air quality and are relatively quiet, but the visual impact of the overhead wiring system of a trolleybus system to the city landscape could be an issue. In terms of air quality, with the continuous improvements in diesel bus technology and the use of cleaner fuel by existing diesel buses, the Study findings indicate that by 2011, the use of cleaner diesel buses and other environmental improvement measures would, in comparison with 1997, reduce the roadside emission level of particulates (PM10) by up to 85 per cent, nitrogen oxides (NOx) by up to 44 per cent and hydrocarbon (HC) by up to 45 per cent in the urban area, whereas the introduction of trolleybuses by replacing part of the diesel bus network could bring only additional reduction of only 0.5 per cent - 2 per cent in particulates and hydrocarbon emissions and 4 per cent - 6 per cent in nitrogen oxide emissions.

"In view of the financial viability problem, higher fares and the important technical and operational risks involved, we do not consider there is a case to introduce trolleybuses in existing built-up areas," the spokesman said.

"On the other hand, for new development areas, better planning at the design stage would help address some of the problems associated with trolleybus operation. Therefore the Government would study the possibility of introducing trolleybuses amongst other environmentally friendly transport modes in the South East Kowloon Development to determine the best choice of transport mode for this new development area."

"If a transport operator puts forward proposals for introducing trolleybuses, the Government would also keep an open mind and consider them carefully". The Government would continue to undertake effective measures under its stated transport objective to provide transport infrastructure and services in an environmentally acceptable manner to ensure the sustainable development of Hong Kong. A multi-facet approach is taken to reduce vehicle emissions by giving priority to the development of railways; to reduce traffic by putting greater emphasis on pedestrian facilities and better coordination of public transport modes; to reduce emissions by tightening vehicle emission controls; to explore the use of alternative fuel vehicles to replace diesel vehicle and the application of IT on transport management.

The feasibility study was commissioned by the Transport Department in 2000.

End/Tuesday, June 19, 2001