環保小巴大聯盟

LegCo Panel on Transport
Meeting on January 25, 2002
Information papers

THE OPERATION AND IMPROVEMENT OF PUBLIC LIGHT BUS SERVICES

The "**Environmental Light Bus Alliance**" commissioned **Professor C.K. Leung, Former Chairman of Transport Advisory Committee**, to conduct a consultancy study regarding the operation and improvement of Public Light Bus (PLB) services in Hong Kong. The rationale for the establishment of PLB and its operation and limitations have been reviewed, with the main focus on what are the options in response to public and government expectations for PLB service improvement and its conversion from diesel to LPG fuel on environmental grounds.

The full report has been announced in October 2001. Enclosed is the executive summary of the report for your reference. Should you have any enquiries, please do not hesitate to contact **Ms Clara Li** (Tel: 2520-2690, Mobile: 9430-1664, Fax: 2520-5535) or **Ms Jacqueline Choy** (Tel: 2520-2690, Mobile: 9100-6469, Fax: 2520-5535).

Yours sincerely,

Environmental Light Bus Alliance

The Operation and Improvement

of Public Light Bus Services

C K Leung & Associates

October 2001

Executive Summary

The purposes of this Study are to review and analyze the operation and improvement of the Public Light Bus (PLB) services in Hong Kong. Three field surveys (PLB traffic count, passengers interview and operators interview) have been conducted. The rationale for the establishment of PLB and its operation and limitations have been reviewed, with the main focus on what are the options in response to public and government expectations for PLB service improvement and its conversion from diesel to LPG fuel on environmental grounds.

The PLB emerged from insufficient provision of public passenger transport before the 1960s, and has demonstrated that it has eventually become an integral part of the public transport system of Hong Kong as a feeder service. The success of the PLB in Hong Kong has led its adoption in other cities and countries.

The evidences from the traffic count survey show that the heavy demand for PLB services exist in Kowloon, the New Territories, and Hong Kong Island. On the other hand, there is a widespread and intense queuing phenomenon on more than half of the surveyed PLB routes at peak hours, and load factors and service frequencies at peaks are already very high.

PLB passengers interview reveals that they appear to be younger, of the relatively low-income groups. There is a definite need for the relatively cheap, short-distanced, and frequent PLB services for these groups of passengers.

Despite policy restrictions on PLB's operation (fleet size and routes), PLB still carries 1.57 million passengers a day as the third largest public transport carrier, and proves to be the most efficient among all land transport modes in terms of capacity utilization. However, that PLB's shrinking market share of total passenger transport from 23% in 1980 to 15% today may have resulted from the much faster development of other modes and its insufficient capacity. The analysis also indicates that there is a trend towards conglomeration, making PLB well poised to achieve greater economy of scale and to upgrade organization and management standards

Pressures from the public and government have been mounting for the PLB to improve its services, culminating in a push to use cleaner fuel such as LPG to respond to the environmental concerns. Various options to compensate the financial impacts of these improvements have been examined, such as government subsidy, increasing fleet size, and fare adjustment. Unfortunately none of these seems feasible or acceptable. The last option of increasing seating capacity has been chosen for detailed analysis, primarily on the financial impact of conversion to LPG. Through a cost and benefit analysis of PLB operation, it has been found that conversion to LPG entails substantial additional costs, which the trade can hardly bear.

Further analysis was carried out to test the impact of seating capacity increases. Based on the estimation of public land transport boardings in the *Third Comprehensive Transport Study, Final Report 1999*, the growth rate of lower, medium and upper bound of PLB boarding in the first year after increasing seating capacity were assumed to be 1.25%, 2.5% and 5% respectively. Four scenarios representing the addition of 2, 4, 6, and 8 seats were therefore input and results are compared with the

base case of no increase in the number of seats. The analysis shows that increasing seating capacity does not produce high profits as might have been thought to, instead it could provide only a small improvement in the net profit margin of between 3.8% (2 seats added) and 8.6% (8 seats added), compared to the base case. The study argues that, with an increase in seating capacity, there will be no significant adverse impact on PLB passengers, road traffic, or franchised bus.

In the absence of other feasible or acceptable options, and considering that this option will not change the fleet size, will not require a government subsidy, will be no extra cost to PLB passengers, and more importantly will not generate feared high profit, serious consideration should be given to this option. It seems therefore that permitting PLB to increase seating capacity is an acceptable option to facilitate PLB to make service improvements and to convert to LPG.