

By post and by email at [enquiry@hkskefts.hk](mailto:enquiry@hkskefts.hk)

30 December 2019

Civil Engineering and Development Department  
West Development Office  
9/F, Sha Tin Government Offices  
1 Sheung Wo Che Road  
Sha Tin, New Territories

Dear Sir/ Madam

**Stage 1 Public Consultation for Feasibility Study on Environmentally Friendly Transport Services in Hung Shui Kiu/Ha Tsuen New Development Area and Adjacent Areas**

Regarding the captioned subject, the Institution is pleased to provide herewith our views and suggestions for your consideration.

Thank you for your attention.

Yours faithfully



Monica YUEN (Mrs)  
Chief Executive & Secretary  
The Hong Kong Institution of Engineers

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MY/SW

**Enclosure**

**Views from the Hong Kong Institution of Engineers on Stage 1 Public Consultation  
for Feasibility Study on Environmentally Friendly Transport Services  
in Hung Shui Kiu/Ha Tsuen New Development Area and Adjacent Areas**

The Hong Kong Institution of Engineers (the HKIE) supports in principle the development of Environmentally Friendly Transport Services (EFTS) in Hung Shui Kiu/Ha Tsuen (HSK/HT) New Development Area (NDA) and Adjacent Areas. We would like to put forth our further suggestions with regard to the feasibility Study on EFTS in HSK/HT NDA and Adjacent Areas (the Study) in the ensuing paragraphs for the Administration's consideration.

**THE STUDY**

2. The HKIE notes that there are seven modes of EFTS mentioned in the Study, while only three of them are shortlisted for further comparison. We would suggest the Administration to provide detailed information such as capital and operation/ maintenance cost for considering the whole life cost and the ease of maintenance among the seven modes. Furthermore, we are of the view that factors such as fare level, passenger waiting time/ boarding time/ alighting time, and the impact of other road traffic by the at-grade traffic modes should be elaborated to facilitate comparison and shortlisting. The site constraints (e.g. the minimum turning radius on site), which limits the applicability of a certain mode (e.g. monorail system), should also be showed.
3. As passenger demand forecast for a particular transit mode may vary with the service level provided (e.g. frequency), passenger demand forecast for various modes should also be provided for comparison and consideration.
4. Regarding the three shortlisted modes, namely Green Bus System (GBS), Modern Tram, and Automated People Mover (APM), the HKIE would like the Administration to elaborate with more details of their advantages and operational modes. For the APM, the Administration is suggested to highlight its possible advantage(s) over Monorail, and project the difference and concerns, if any, on the passenger boarding and alighting time with Modern Tram. As for the GBS, we would suggest the Administration to indicate if the estimation of the capital cost and journey time is based on an elevated, at-grade or depressed system. Moreover, the previous unsuccessful experience of Hong Kong in adopting the electric bus should also be taken into consideration.
5. It is noted that trackless tram is categorised under Modern Tram in the Study. However, the whole life cost of existing modern tram can be very different from that of the trackless tram. The Administration is suggested to clarify if the preliminary capital cost estimate of HK\$ 25-30 billion for the Modern Tram is referring to existing modern tram or trackless tram with the inclusion of operation/ maintenance costs. Also, as there is no proven record for the construction and operation of trackless tram in Hong Kong, the Administration should also put this as a point of consideration.

**FURTHER CONSIDERATIONS**

6. The HKIE suggests expanding the coverage of transport modes in the Study to include

Group Rapid Transit (GRT), cable drawn as well as the transport with new technologies such as magnetic levitation train system (Maglev). Moreover, in considering mixed-mode operations, autonomous shuttle bus/ private car system should also be included so as to facilitate the integration with different land use densities and types.

7. For the future new town development towards smart mobility, instead of the standalone EFTS under traditional transport planning approach, the Administration is suggested to consider the adoption of the Mobility as a Service (MaaS) approach. By adopting the MaaS approach, the whole transport system can shift towards ride-sharing and car-sharing services as well as on-demand “pop-up” public transport services under an integrated planning of land use and multiple transport options.