

立法會 *Legislative Council*

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Panel on Environmental Affairs

Meeting on 23 March 2015

Background brief on "Low emission zones" prepared by the Legislative Council Secretariat

Purpose

This paper provides background information on the low emission zones ("LEZs"), and gives a brief account of the views and concerns expressed by members of the Panel on Environmental Affairs ("the Panel") and the Subcommittee on Issues Relating to Air, Noise and Light Pollution ("the Subcommittee")¹ formed by the Panel on the subject.

Background

2. According to the Administration, franchised buses account for up to 40% of the traffic volume on the busy roads in Causeway Bay, Central and Mong Kok. Therefore, the establishment of LEZs for buses can help improve roadside air quality and protect public health.

3. In the 2010 Policy Address, the Government announced the setting up of pilot LEZs on the busy roads in Causeway Bay, Central and Mong Kok and encouraged franchised bus companies to deploy low emission buses to ply those routes passing the pilot LEZs. Low emission buses include buses meeting Euro IV or higher emission standards, or Euro II and III buses retrofitted with selective catalytic reduction devices ("SCRs") and diesel particulates filters ("DPFs")².

¹ The Panel decided at its meeting on 26 November 2012 to appoint a subcommittee to study issues relating to air, noise and light pollution for better protection of public health. The Subcommittee concluded its work and submitted a report ([LC Paper No. CB\(1\)1003/13-14\(01\)](#)) to the Panel on 27 February 2014.

² Franchised bus companies are given subsidies to retrofit SCRs to Euro II and III buses. They aim to complete the retrofit programme by end 2016. The Government has also funded the

4. The Government's target is to have, by the end of 2015, only low emission buses travelling on LEZs.

Number of low emission franchised buses

5. According to the recent figures provided by the Administration³, as at end of September 2014, the bus fleet of the Kowloon Motor Bus Company (1933) Limited ("KMB"), the Citybus Limited ("CTB") and the New World First Bus Services Limited ("NWFB") had a total of 5 529 buses, 1 705 of them were low emission buses, accounting for about 30% of the total. As at end of August 2014, there were about 1 100 low emission buses running past the three LEZs which was about 46% of the total. The number and percentage of low emission buses owned by each franchised bus company are set out in **Appendix I**.

6. The Administration has advised that, at present, the franchised bus companies have to use buses of less than 18 years old to provide franchised bus services. All pre-Euro buses have already been retired and all Euro I buses will be retired by 2015. Franchised bus companies are replacing these buses by new ones. For Euro II and III buses, the franchised bus companies are expediting the work on retrofitting them with SCRs and DPFs such that it can be completed by end of 2016 to upgrade their emission performance to that of Euro IV or above level. By then, there will only be about 440 Euro II and 470 Euro III buses which do not meet the retrofitting criteria and they will also be retired before 2019 and 2026 respectively.

Progress of implementation of pilot LEZs

7. In its briefing for the Panel on the relevant policy initiatives featured in the 2015 Policy Address⁴ on 26 January 2015, the Administration advised that KMB has estimated that they can deploy low emission buses within LEZs before end of 2015. The latest estimate of CTB and NWFB is that due to the possible delay of the new rail lines on Hong Kong Island, the slower than expected implementation of bus route rationalization and the increase in demand for low emission buses in other districts, about 87% of the buses in LEZs will be low emission buses by end 2015. The Administration is examining with CTB and

franchised bus companies to procure six double-deck hybrid buses and 36 single-deck electric buses for trial. All the hybrid buses started operation by end 2014 while the electric buses would commence operation progressively starting from mid 2015.

³ Source: written reply by the Secretary for the Environment to a question raised by Hon LEUNG Yiu-chung at the Legislative Council meeting of 12 November 2014 (<http://www.info.gov.hk/gia/general/201411/12/P201411120473.htm>)

⁴ See paragraphs 5-6 of LC Paper No. [CB\(1\)436/14-15\(01\)](#)

NWFB all possible alternatives for achieving the LEZ target of having only low emissions buses travelling on LEZs the soonest possible.

8. In parallel, the Administration has been implementing an incentive-cum-regulating approach⁵ to phase out pre-Euro IV diesel commercial vehicles ("DCVs") by end 2019. These DCVs include goods vehicles, light buses and non-franchised buses. So far over 21 000 DCVs of pre-Euro, Euro I to Euro III standards had been scrapped by end December 2014. In addition, a remote sensing system to screen petrol and LPG vehicles with excessive emission has been launched since September 2014 and some 190 000 vehicles had been checked by mid-January 2015. These measures will reduce emission from vehicles and help improve the roadside air quality.

Members' views and concerns

9. The Panel touched on the subject of LEZs when discussing issues relating to the environmental initiatives in the Chief Executive's Policy Address at its meetings on 27 January 2014 and 26 January 2015. The Subcommittee touched on the subject of LEZs when discussing issues relating to the emission control measures at its meeting on 26 April 2013. The major views and concerns expressed by members of the Panel and the Subcommittee are summarized in the ensuing paragraphs.

Extending the scope of LEZs to other types of vehicles

10. Some members enquired whether the Administration would consider extending the scope of restriction of access to LEZs from franchised buses to all other vehicles, in particular those heavily polluting DCVs, to further improve the air quality of these zones.

11. The Administration responded that if the scope of restriction of access to the three LEZs was extended to all other vehicles at this stage, some vehicle owners might not be able to use their vehicles to earn a living in these zones, thus affecting their business operations. The Administration did not have any plan to ban non-low emission vehicles of other categories from entering the three LEZs.

⁵ To improve roadside air quality and better protect public health, the Chief Executive proposed in the 2013 Policy Address to set aside \$10 billion as subsidies to owners of over 80 000 pre-Euro IV DCVs in order to progressively phase out these vehicles and to limit the service life of newly registered DCVs at 15 years (See [FCR\(2013-14\)52](#)). The proposal was approved by the Finance Committee on 10 January 2014. The scheme was subsequently launched in March 2014.

12. In response to members' enquiry about the phasing out of heavily polluting DCVs, the Administration advised that while over 21 000 pre-Euro IV DCVs had been scrapped by end December 2014, it was anticipated that all DCVs of pre-Euro and Euro I standards would have been phased out by end 2016. The incentive-cum-regulatory scheme for retiring pre-Euro IV DCVs was implemented in phases to allow adequate time for the vehicle scrapping trade and vehicle suppliers to tackle the surge of demand brought about by the scheme.

Extending LEZs to other districts

13. Some members held the view that consideration should be given to setting up LEZs in other districts, such as Kwun Tong, Tung Chung and Sham Shui Po. The Administration advised that as franchised buses were plying different routes and travelling to and from different districts, low emission buses serving the three LEZs would also pass through other districts. The setting up of the three LEZs would therefore in turn help reduce vehicular pollution in other districts.

Council question

14. At the Council meeting on 12 November 2014, Hon LEUNG Yiu-chung raised a question relating to the establishment of LEZs for buses. The Council question and the Administration's reply are hyperlinked in **Appendix II**.

Recent developments

15. Dr Hon Kenneth CHAN and Hon Dennis KWOK wrote to the Panel Chairman on 12 November 2014 and 20 January 2015 respectively (LC Paper Nos. CB(1)225/14-15(01) and CB(1)474/14-15(01)) proposing discussion on designation of LEZs at busy corridors. Two letters are hyperlinked in **Appendix II**.

16. The Administration will brief the Panel on the progress of the three LEZs at busy corridors at the Panel meeting on 23 March 2015.

Relevant Papers

17. A list of relevant papers is set out in **Appendix II**.

Appendix I

Number and percentage of low emission buses owned by each franchised bus company

Bus Company	No. of buses in the fleet	No of low emission buses	Percentage of low emission buses in the fleet (%)
The Kowloon Motor Bus Company (1933)	3 855	956	25
The Citybus Limited	960	552	58
The New World First Bus Services Limited	714	197	28
Total	5 529	1 705	31

Source: written reply by the Secretary for the Environment to a question raised by Hon LEUNG Yiu-chung at the Legislative Council meeting of 12 November 2014 (<http://www.info.gov.hk/gia/general/201411/12/P201411120473.htm>)

Low emission zones

List of relevant papers

Council/ Committee	Date of meeting	Paper
Subcommittee on Issues Relating to Air, Noise and Light Pollution	26 April 2013	Administration's paper on "Cost-benefit analysis of the various measures taken to improve air quality" (LC Paper No. CB(1)838/12-13(01)) Minutes of meeting (LC Paper No. CB(1)1692/12-13)
Panel on Environmental Affairs	27 January 2014	Administration's paper on "2014 Policy Address - Policy initiatives of Environment Bureau: Environmental protection" (LC Paper No. CB(1)744/13-14(01)) Minutes of meeting (LC Paper No. CB(1)1291/13-14)
Panel on Environmental Affairs	--	Letter dated 12 November 2014 from Dr Hon Kenneth CHAN regarding discussion on the designation of low emissions zones at busy corridors (Chinese version only) (LC Paper No. CB(1)225/14-15(01))
Panel on Environmental Affairs	--	Letter dated 20 January 2015 from Hon Dennis KWOK regarding discussion on the designation of low emissions zones at busy corridors (Chinese version only) (LC Paper No. CB(1)474/14-15(01))
Panel on Environmental Affairs	26 January 2015	Administration's paper on "2015 Policy Address - Policy initiatives of Environment Bureau: Environmental protection" (LC Paper No. CB(1)436/14-15(01))

Hyperlink to relevant Council Question:

Date	Council Question
12 November 2014	Council question raised by Hon LEUNG Yiu-chung http://www.info.gov.hk/gia/general/201411/12/P201411120473.htm