



TO: Panel on Transport, Legislative Council  
 FROM: Clean Air Network  
 DATE: 31 October 2011

RE: Renewal of Franchise Bus Agreements

In July 2009, Secretary of the Environment, Edward Yau, stated that the majority of roadside emissions come from “buses”, making environmental safeguards an indispensable component of any forward-thinking revision of the government’s renewal of its agreements with the franchised bus companies.

Forty percent of Hong Kong’s roadside pollution originates from buses. The major pollutants they emit are nitrogen oxides and particulate matter, which affect the health and lung function of citizens. Current standards for Hong Kong’s franchised bus licensing do not include environmental considerations. In the meantime, 75% of buses on Hong Kong’s roads are equipped with Euro II or older engines; only 1-5% of buses meet the current cleanest engine standards. The oldest diesel engines (Euro II and below) are 34 times dirtier than the newer, cleaner engines (Euro VI and above).

Traffic pollutants, specifically particulate matter and nitrogen oxide, have been shown to increase risk of lung cancer and the risk of mortality from lung cancer. Two hours of exposure to high levels of roadside pollution increase a person’s heart rate, upping their risk of having a heart attack for up to six hours afterwards. Studies have also found that living within 100 to 150 meters from highways and major roadways exacerbates, and can cause, asthma and increase the risk of bronchiolitis and pneumonia in children. Finally, roadside pollution can even affect the brain, causing depression, memory loss and slowed motor function.

As the city’s leading NGO on the issue of air pollution and health, Clean Air Network advocate the adoption of the following measures, which would go some way to significantly abating the emissions attributable to franchised buses and their operation:

1. In order to speed the uptake of cleaner buses, being Euro V or higher and including hybrid and electric technologies, the determination and imposition of aggregate fleet emissions caps, effective beginning, whichever is earlier, 2015 or whenever it becomes practically feasible to meet those caps in light of current vehicle technologies; OR, alternatively, making the renewal of franchise bus agreements contingent on the transition to a Euro V or higher bus fleet before the end of 2016.

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2. Financial rewards and penalties related to 1., should bus companies' emissions or phase-out progress exceed or fall short of the environmental objectives stated in their franchise agreements;
3. Per a paper<sup>i</sup> authored by Michael Edesess of City University and published by think tank, Civic Exchange, in July of this year, attached to the submission, one of the major challenges of cleaning up air pollution is the failure to maintain and police the condition of commercial vehicles, across all engine generations. In the case, we recommend the establishment of an independent inspectorate under the Electrical and Mechanical Services Department to conduct both regular as well as random unannounced spot checks on all vehicles operated by the bus companies. Franchised bus companies would grant the Inspectorate access to vehicles, with the cost of the inspectorate and its operations being defrayed by fees payable by the bus companies under their franchise agreements.

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<sup>i</sup> Roadside air pollution in Hong Kong: Why is it still so bad? By Michael Edesess  
[http://www.civic-exchange.org/wp/wp-content/uploads/2011/07/110706RoadsideAir\\_en1.pdf](http://www.civic-exchange.org/wp/wp-content/uploads/2011/07/110706RoadsideAir_en1.pdf)

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