

## Press Releases

繁體版 | 簡體版 | Email this article | news.gov.hk

EQ18: Air pollution caused by road traffic

\*\*\*\*\*

Following is a question by the Hon Kam Nai-wai and a written reply by the Secretary for the Environment, Mr Edward Yau, at the Legislative Council meeting today (June 15):

Questions:

Regarding air pollution caused by road traffic in Hong Kong, will the Government inform this Council:

(a) whether it knows the respective numbers of buses in the fleet of each franchised bus company (company) at present, together with a breakdown by emission standards; the numbers of old buses replaced each year by each company since 2005, as well as the replacement cost of each bus and the total replacement costs (with a breakdown by company name);

(b) whether the annual air pollutant emission inventory in respect of various types of vehicles (including franchised buses and other vehicles) since 2009 have been completed; if so, of the details; if not, the reasons for that and the estimated completion time;

(c) whether it will consider encouraging bus companies to advance the retirement of high-emission buses by means of financial subsidies or franchise extension; if it will, of the details, and the amount of funds required and the impact on bus fares; if not, the reasons for that, and whether it has more effective measures to encourage bus companies to advance the replacement of these buses;

(d) given that in reply to a question raised by a Member of this Council on May 25 this year, the Secretary for the Environment indicated that "the pilot low-emission zones (LEZs) to be designated in Causeway Bay, Central and Mong Kok seek to restrict the access of franchised buses to low-emission models", whether it has assessed the changes in the levels of air pollutants in these districts after the designation of LEZs; whether it will extend the scope of restriction of access to these zones from franchised buses to all other vehicles; and

(e) in the past five years, of the respective numbers of various types of vehicles in Hong Kong each year (with a breakdown by

cylinder capacity, emission standards and vehicle type); and a breakdown of the emission figures of each vehicle type (including private cars (petrol), private cars (light diesel oil), goods vehicles and special purpose vehicles (except van-type light goods vehicles (LGVs)), LGVs, public buses, private buses, taxis, motor cycles and motor tricycles, public light buses, private light buses, electrically powered passenger vehicles) each year by cylinder capacity (set out in the format of Annex I)?

Reply:

President,

(a) The number of buses owned by the franchised bus companies as at end March 2011, classified by emission standards, is shown at Annex II.

The respective number of buses purchased and old buses retired by the franchised bus companies in each year between 2005 and 2010 is at Annex III. Currently, a new double-deck bus and a new single-deck bus costs about \$3 million and \$2 million respectively. The total cost of the franchised bus companies for procurement of buses depends on the market prices at different points in time, the numbers and types of buses purchased, as well as foreign exchange rates, etc.

(b) We are still compiling the 2009 emission inventory of vehicles which is expected to complete within this year. For the preliminary 2009 emission inventory of vehicles, please refer to Annex IV.

(c) When considering bus franchises, the Government takes into account various factors, including the provision of proper and efficient public bus services; quality of services in terms of reliability, bus safety measures and passenger satisfaction; and commitments by bus companies to service enhancement and implementation of environment-friendly measures. In fact, we have already added in the bus franchises the provision to require bus companies to adopt, as far as reasonably practicable, the latest commercially available and proven environment-friendly technologies for acquiring new buses to reduce emissions and noise nuisance.

On the other hand, all franchised bus companies are required to operate their franchised bus services with buses under the age of 10, and have been replacing their serving buses

accordingly. Based on this arrangement, about 35% of serving franchised buses (about 2 000 buses), including all pre-Euro and Euro I buses, as well as some Euro II buses, will retire by 2015.

Besides, we have been encouraging the bus companies to implement the following environment-friendly measures -

- (a) encouraging the bus companies to deploy cleaner vehicles along busy corridors;
- (b) including the adoption of environment-friendly measures as a criterion in selecting operators for new bus route packages; and
- (c) enhancing bus service rationalisation to reduce roadside air pollution, noise nuisance, traffic congestion and energy consumption.

The ultimate objective of the Government is to have zero emission buses running across the territory. When the current bus franchises expire in the coming few years, we will impose additional requirements in the franchises for the bus companies to switch to zero emission buses or the most environment-friendly buses when replacing existing ones, taking into account the feasibility and affordability for bus operators and passengers.

Franchised bus companies will replace all their pre-Euro and Euro I buses by 2015. Nevertheless, at present nearly 70% of franchised buses (about 3 000 buses) are Euro II or III vehicles. Given their large numbers, it would be difficult to phase out all these buses in the coming few years. Therefore, we consider that retrofitting suitable emission reduction devices to Euro II and III buses would be more feasible and cost-effective than using financial subsidies to encourage bus companies to advance the retirement of Euro II or III buses. To this end, we are now working jointly with the franchised bus companies to undertake a trial to retrofit buses of these emission standards with selective catalytic reduction (SCR) devices to reduce their emissions of nitrogen oxides. Together with the diesel particulate filters already installed on the buses, this could upgrade the emission performance of the buses to the level of Euro V or V buses. Subject to satisfactory trial results, the Government will fund the full cost of retrofitting Euro II and Euro III buses with SCR devices.


(d) The Government is planning to designate pilot low emission zones (LEZs) for franchised buses in busy districts such as Causeway Bay, Central and Mong Kok, with the target of having only low-emission buses (i.e. those meeting the emission level

of a Euro IV or above bus) in those zones by 2015 the latest. By that time, we estimate that the roadside concentration of the major air pollutants from vehicular emissions, the being respirable suspended particulates and nitrogen oxides, would be reduced by about 14% and 26% respectively when compared with the 2008 levels. We would make reference to the air quality monitoring data measured at the roadside air quality monitoring stations to assess the effectiveness of the pilot LEZs in improving roadside air quality. Moreover, the experience gained in designating pilot LEZs would provide useful reference for us to consider whether to extend the restriction to other vehicle types.

(e) The Transport Department has started to break down the numbers of licensed vehicles of different vehicle classes by cylinder capacity and emission standard (i.e. the Euro standards) since 2007. The relevant information is at Annex V.

Ends/Wednesday, June 15, 2011  
Issued at 10:12:32

NNNN

 Print this page

---

[News Archives](#) | [Yesterday's News](#)

### **ATTACHMENTS**

---

- [Annex I](#)
- [Annex II](#)
- [Annex III](#)
- [Annex IV](#)
- [Annex V](#)

附表一

2005年.....2010年							
車輛種類及 汽缸容量	排放標準						氫能或電 動車
	歐盟前期..... 歐盟五期						
私家車 (汽油)							
1500 cc 以下							
1500 至 2500cc							
2500 至 3500cc							
3500 至 4500cc							
4500cc 以上							
..... 客貨車							
1.9 公噸以下							
1.9 公噸以上							
公共巴士							
..... 電動客車							

附表二

截至 2011 年 3 月底，各專營巴士公司擁有的巴士  
按車輛廢氣排放標準分類資料

	九龍巴士(一九三三)有限公司	城巴有限公司(專營權一) <sup>[註]</sup>	新世界第一巴士服務有限公司	龍運巴士有限公司	城巴有限公司(專營權二) <sup>[註]</sup>	新大嶼山巴士(一九七三)有限公司	總數
歐盟前期	49	9	7	0	0	0	65
歐盟一期	905	270	76	0	4	0	1,255
歐盟二期	1,506	370	481	116	166	13	2,652
歐盟三期	1,099	10	75	18	0	65	1,267
歐盟四期	98	28	38	32	0	15	211
歐盟五期	104	78	33	0	2	9	226
總數	3,761	765	710	166	172	102	5,676

[註]: 城巴有限公司(專營權一)指該公司持有在港島和過海隧道提供巴士服務的專營權;城巴有限公司(專營權二)指該公司持有在北大嶼山和赤鱸角機場提供巴士服務的專營權。

附表三

各專營巴士公司在 2005 年至 2010 年購置巴士的數目

	九龍巴士(一九三三)有限公司	城巴有限公司(專營權一)	新世界第一巴士服務有限公司	龍運巴士有限公司	城巴有限公司(專營權二)	新大嶼山巴士(一九七三)有限公司	總數
2005	42	5	0	3	6	4	<b>60</b>
2006	110	8	0	5	12	0	<b>135</b>
2007	55	5	0	8	4	11	<b>83</b>
2008	21	5	18	2	0	10	<b>56</b>
2009	51	18	20	11	0	2	<b>102</b>
2010	133	73	20	21	0	9	<b>256</b>
<b>總數</b>	<b>412</b>	<b>114</b>	<b>58</b>	<b>50</b>	<b>22</b>	<b>36</b>	<b>692</b>

各專營巴士公司在 2005 年至 2010 年淘汰舊巴士的數目

	九龍巴士(一九三三)有限公司	城巴有限公司(專營權一)	新世界第一巴士服務有限公司	龍運巴士有限公司	城巴有限公司(專營權二)	新大嶼山巴士(一九七三)有限公司	總數
2005	163	10	25	0	10	4	<b>212</b>
2006	118	22	4	0	4	3	<b>151</b>
2007	29	0	4	0	0	1	<b>34</b>
2008	135	2	3	4	0	2	<b>146</b>
2009	104	9	18	1	0	0	<b>132</b>
2010	191	21	24	22	0	1	<b>259</b>
<b>總數</b>	<b>740</b>	<b>64</b>	<b>78</b>	<b>27</b>	<b>14</b>	<b>11</b>	<b>934</b>

附表4

2009年的車輛廢氣排放的初步清單

汽車類別	空氣污染物排放量 (公噸)			
	可吸入懸浮粒子 (RSP)	氮氧化物 (NOx)	揮發性有機化合物 (VOC)	一氧化碳 (CO)
電單車	10	220	840	7,530
汽油私家車 (包括汽油輕型貨車)	10	860	1,190	20,980
的士	60	1,360	1,970	15,580
公共小巴	80	250	270	3,260
私家小巴	10	80	20	330
輕型柴油貨車 (包括柴油私家車)	350	2,870	430	1,090
重型貨車	710	9,690	700	2,550
公共非專營及私家巴士	100	1,260	110	330
專營巴士(單層及雙層)	70	2,110	70	250
總計	1,400	18,700	5,600	51,900



附表五

2007年至2010年按汽缸容量及廢氣排放標準劃分的已領牌車輛數字

2007年

車種	排放標準					電動車 (註一)
	歐盟前期	歐盟一期	歐盟二期	歐盟三期	歐盟四期	
<b>私家車 (汽油)</b>						3
<1500 cc	11,611	25,373	19,314	27,613	9,043	
1501-2500 cc	16,684	35,072	29,393	65,831	30,968	
2501-3500 cc	4,948	12,268	11,385	32,902	14,603	
3501-4500 cc	1,575	2,354	894	5,559	1,993	
>4500 cc	1,759	1,235	1,734	3,485	2,803	
<b>私家車 (柴油)</b>						
<1500 cc	3	0	0	0	0	
1501-2500 cc	613	275	20	1	0	
2501-3500 cc	422	408	48	2	0	
3501-4500 cc	14	2	0	0	0	
>4500 cc	0	0	0	0	0	
<b>貨車</b>						4
<1.9 公噸	24	0	3	3	0	
>1.9 公噸	32,286	23,560	25,931	28,137	7,438	
公共巴士	1,545	1,845	5,010	3,732	702	1
私家巴士	66	60	150	166	41	1
公共小巴	273	543	507	2,900	133	0
私家小巴	559	527	310	351	153	1
的士	1	2	15,882	1,559	721	0
電單車	8,578	24,550	0	0	0	5

2008年

車種	排放標準						電動 車 (註一)
	歐盟前期	歐盟一期	歐盟二期	歐盟三期	歐盟四期	歐盟 五期 (註二)	
<b>私家車 (汽油)</b>							1
<1500 cc	8,868	23,182	18,732	27,327	14,737	-	
1501-2500 cc	12,605	31,221	27,855	64,524	47,515	-	
2501-3500 cc	3,792	10,590	10,757	32,125	22,323	-	
3501-4500 cc	1,316	2,020	829	5,455	3,716	-	
>4500 cc	1,481	1,089	1,682	3,408	4,236	-	
<b>私家車 (柴油)</b>							
<1500 cc	2	0	0	0	0	-	
1501-2500 cc	594	262	19	1	0	-	
2501-3500 cc	415	398	46	2	0	-	
3501-4500 cc	14	1	0	0	0	-	
>4500 cc	0	0	0	0	0	-	
<b>貨車</b>							4
<1.9 公噸	25	0	2	4	0	0	
>1.9 公噸	26,083	21,471	25,115	27,898	15,035	21	
<b>公共巴士</b>	1,248	1,471	4,910	3,723	1,397	2	1
<b>私家巴士</b>	56	46	140	163	88	0	1
<b>公共小巴</b>	110	515	499	2,884	256	86	0
<b>私家小巴</b>	422	459	307	346	315	87	0
<b>的士</b>	1	2	15,400	1,545	1,280	0	0
<b>電單車</b>	7,419	22,809	0	0	0	0	5

2009年

車種	排放標準						電動 車 (註一)	
	歐盟前期	歐盟一期	歐盟二期	歐盟三期	歐盟四期	歐盟 五期 (註二)		
<b>私家車 (汽油)</b>							2	
<1500 cc	6,592	21,079	18,153	27,020	19,921	-		
1501-2500 cc	9,788	27,900	26,729	64,101	61,203	-		
2501-3500 cc	3,053	9,332	10,359	31,979	28,463	-		
3501-4500 cc	1,093	1,766	780	5,429	4,680	-		
>4500 cc	1,269	931	1,606	3,431	5,345	-		
<b>私家車 (柴油)</b>								
<1500 cc	3	0	0	0	0	-		
1501-2500 cc	591	250	20	1	0	-		
2501-3500 cc	395	401	44	2	-	83 (註二)		
3501-4500 cc	15	1	0	0	0	-		
>4500 cc	0	0	0	0	0	-		
<b>貨車</b>								4
<1.9 公噸	18	0	1	4	0	0		
>1.9 公噸	22,402	20,081	24,748	28,023	18,317	41		
公共巴士	1,081	1,258	4,808	3,708	1,861	38		
私家巴士	46	30	128	165	122	1		
公共小巴	76	471	498	2,872	256	74		
私家小巴	385	440	298	342	446	81		
的士	1	2	15,056	1,530	1,651	0		
電單車	6,540	21,390	0	0	0	0		

## 2010年

車種	排放標準						電動 車 (註一)
	歐盟前期	歐盟一期	歐盟二期	歐盟三期	歐盟四期	歐盟 五期 (註二)	
<b>私家車 (汽油)</b>							59
<1500 cc	5,081	19,085	17,465	26,766	27,670	-	
1501-2500 cc	7,630	24,457	25,208	62,810	79,544	-	
2501-3500 cc	2,494	7,874	9,746	31,391	37,430	-	
3501-4500 cc	942	1,514	731	5,322	5,793	-	
>4500 cc	1,098	810	1,558	3,345	7220	-	
<b>私家車 (柴油)</b>							
<1500 cc	1	0	0	0	0	-	
1501-2500 cc	578	238	21	0	-	-	
2501-3500 cc	407	402	43	2	0	229 (註一)	
3501-4500 cc	14	1	0	0	0	-	
>4500 cc	0	0	0	0	0	-	
<b>貨車</b>							4
<1.9 公噸	18	0	1	4	0	0	
>1.9 公噸	20,106	18,613	23,856	27,936	23,797	981	
公共巴士	701	1,121	4,552	3,686	2,401	253	
私家巴士	43	26	118	158	134	17	
公共小巴	36	359	495	2,868	431	159	
私家小巴	361	403	297	348	544	125	
的士	1	1	14,678	1,520	2,029	13	
電單車	5,797	20,111	0	0	0	0	

註一：由於現時混能車被歸類為汽油車類別，所以運輸署並沒有混能車的獨立統計資料。

註二：歐盟五期柴油商用車輛的統計資料是根據在環保商用車輛稅務寬減計劃獲得稅務寬減的歐盟五期中輛數目得出的，環保商用車輛稅務寬減計劃於2008年4月1日推出。由於該計劃並不包括專營巴士，以上公共巴士列的歐盟五期中輛數目並不包括專營巴士。

註三：現時在本港首次登記的柴油私家車均符合歐盟六期柴油私家車的排放標準。