

For discussion
10 March 2010

LEGISLATIVE COUNCIL
PANEL ON ENVIRONMENTAL AFFAIRS
SUBCOMMITTEE ON IMPROVING AIR QUALITY

Early Replacement of Old Diesel Commercial Vehicles

PURPOSE

This paper gives an update on the progress of the one-off grant scheme to encourage early replacement of pre-Euro and Euro I diesel commercial vehicles. It also seeks Members' views on a proposal to provide one-off grant to eligible vehicle owners to replace their Euro II diesel commercial vehicles with new ones and revisits the suggestion of raising the licence fees of aged commercial vehicles to deter their continued usage.

BACKGROUND

2. Motor vehicles are the major source of roadside air pollution. Of the vehicle fleet, diesel commercial vehicles are the major air pollution emitters, accounting for about 88% and 76% of the total vehicular emission of respirable suspended particulates (RSP) and nitrogen oxides (NO_x) respectively, which are the two key air pollutants at the roadside.

3. Of the current 117,000 diesel commercial vehicles licensed in Hong Kong, they comprise some 23,000 pre-Euro, 15,100 Euro I, 28,000 Euro II, 31,000 Euro III, 20,000 Euro IV and 150 Euro V diesel vehicles. The relative emissions of the pre-Euro IV diesel commercial vehicles as compared with Euro IV vehicles, which are now the statutory requirement for newly

registered vehicles, are tabulated in the following table –

Vehicles Design Standard	Emissions relative to those of Euro IV Diesel Commercial Vehicles	
	RSP	NO _x
Pre-Euro	34	2.6
Euro I	18	2.3
Euro II	7.5	2
Euro III	5	1.4
Euro IV	1	1
Euro V	1	0.6

Phasing out aged commercial vehicles thus holds the key to cleaner roadside air quality. For this reason, the Air Quality Objective Review has recommended as one of the air quality improvement measures early retirement of all pre-Euro III diesel commercial vehicles.

4. In the light of the much higher emissions of pre-Euro and Euro I diesel commercial vehicles, the Government launched in April 2007 a three-year long one-off grant scheme to encourage the early replacement of these more polluting vehicles to bring an early relief to roadside air pollution. The scheme offered an application period of 18 months for pre-Euro diesel commercial vehicles, as opposed to 36 months for Euro I vehicles, because the former are much older and more polluting. However, in consideration of the high diesel price and poor economic outlook in 2008, we extended in September 2008 the application period of pre-Euro diesel commercial vehicles by another 18 months to 31 March 2010, i.e. same application deadline as Euro I diesel commercial vehicles. To provide extra impetus for the early replacement of these more polluting vehicles, we proposed in November 2008 to Members (LC paper No: CB(1)223/08-09/08) introducing disincentives against the use of aged commercial vehicles by raising their licence fees. However, Members did not support the proposal.

5. By now, the oldest Euro II diesel commercial vehicles have entered their 12th year of operation. In his 2010-11 Budget Speech, the Financial Secretary has proposed to set aside \$540 million for offering a one-off grant to encourage the early replacement of Euro II diesel commercial vehicles to improve roadside air quality.

THE ONE-OFF GRANT SCHEME FOR PRE-EURO AND EURO I DIESEL COMMERCIAL VEHICLES

Take-up of the Grant

6. Before the commencement of the one-off grant scheme, the number of eligible vehicles stood at about 59,800¹. As at end 2009, the number of eligible vehicles reduced to 38,100² - a net reduction of some 21,700. Among these retired vehicles, 13,372 vehicles (including 9,142 pre-Euro and 4,230 Euro I vehicles), accounting for about 22% of the eligible vehicles at the commencement of the scheme), have been replaced with new ones with the aid of the grant totaling about \$576 million.

7. Between April 2007 and September 2008, the number of applications (pre-Euro and Euro I diesel commercial vehicle) for the grant showed a distinct increasing trend with monthly applications averaging 550. However, there has been a major drop in the number of applications to around 260 per month after the announcement of our decision to extend the application deadline in September 2008. The trends of application for pre-Euro and Euro I diesel commercial vehicles are given at **Annex A**.

8. At the last Subcommittee meeting on 4 January 2010, Members asked for the transaction history of the remaining eligible vehicles. According to

¹ Before the commencement of the scheme, the numbers of pre-Euro and Euro I diesel commercial vehicles were about 39,600 and 20,200 respectively.

² As at end 2009, the numbers of pre-Euro and Euro I diesel commercial vehicles were about 23,000 and 15,100 respectively.

the record, there were some 38,100 licensed pre-Euro and Euro I diesel commercial vehicles eligible for the one-off grant as at end 2009. For these vehicles, some 11,300 had their ownership changed since the launch of the grant scheme in April 2007. The vehicle owners had transferred the ownership of their vehicle without buying a replacement vehicle with the aid of the grant.

Transport Trades' Suggestions

9. As the scheme is drawing to a close, the transport trades have come up with the following suggestions to further encourage the replacement of these more polluting vehicles –

- (a) extending the application period by one to two years to allow more eligible vehicle owners to make use of the grant for the replacement of their vehicles. Some have also suggested making it a standing scheme to subsidise vehicle owners to replace their old vehicles;
- (b) increasing the grant levels in order to provide stronger incentives for the replacement;
- (c) replacing the date of first registration of a vehicle with its vehicle manufacture date or the engine emission design standard as the criterion for distinguishing pre-Euro and Euro I vehicles for determining the eligibility for the grant;
- (d) abolishing the requirement for vehicle owners to acquire new commercial vehicles so as to qualify for the grant. In other words, vehicle owners should be given the grant solely for scrapping their vehicles; and
- (e) setting up an interest-free loan or low-interest loan using the remaining balance of the scheme to help vehicle owners to purchase new vehicles.

10. We have carefully considered the suggestions and our response is set out below –

- (a) when the scheme expires by end March 2010, we will have provided eligible vehicle owners 36 months to participate in the scheme. We consider it inappropriate to extend the application period of the scheme because the extension will go against the objective of encouraging the early replacement of pre-Euro and Euro I diesel commercial vehicles with new ones so as to bring early relief to roadside air pollution. As can be seen from **Annex A**, the take up rate of the scheme since we extended the application deadline in September 2008 has been hovering at only 260 applications per month, as opposed to an average of 550 applications per month prior to October 2008. It is unlikely that any further extension of the application deadline would help boost the take up rate in any significant way. Some transport trade representatives have raised the concern over the fact that as it would take quite some time for delivery of new commercial vehicles, some prospective applicants could not have their new vehicles delivered in time for applying for the grant. Even if some vehicles may be delivered before the expiry of the scheme, there may not be sufficient time for completing the preparations (such as vehicle body-building work) for applying for the grant. To help address their concern, we have announced a special arrangement for those who have already placed orders for new commercial vehicles on or before the application deadline of 31 March 2010 to retain their eligibility for the grant. Details of the special arrangement are set out at **Annex B**;

- (b) the one-off grant offered under the \$ 3.2 billion incentive scheme amounts to 12% of the cost of a new vehicle for pre-Euro vehicles and 18% for Euro I vehicles. These grant levels are already adequate to compensate the vehicle owners and make the grant scheme attractive;

- (c) as we explained to the Finance Committee when seeking its approval to create a new commitment for the scheme, the first registration date of a vehicle is appropriate for distinguishing vehicles of different emission standards. Under the Road Traffic Ordinance (Cap. 374), a vehicle seeking first registration will have to comply with the emission standards stipulated in the Air Pollution Control (Vehicle Design Standard) (Emissions) Regulations (Cap 311J). Thus, the first registration date is a suitable reference for identifying vehicles eligible for the grant. Moreover, as the first registration date is stated in the vehicle registration document, compared with the alternatives of vehicle manufacture date or engine emission design standard, it is more easily understood by vehicle owners to determine their eligibility for the one-off grant. We have adopted the same approach in mandating the installation of emission reduction devices in pre-Euro diesel vehicles, which works well and we have received no complaints of confusion by vehicle owners;
- (d) the objective of the scheme is to help those commercial vehicle owners who have a continued need for the vehicles in their business operation and replace their old vehicles with more environment-friendly vehicles for better roadside air quality. Should vehicle owners decide to scrap their old vehicles without replacing them with new ones, the chances are they no longer have operational needs for the vehicles. In such circumstances, we do not consider it appropriate to provide subsidies under the scheme to vehicle owners for scrapping their vehicles; and
- (e) vehicle owners who have problem securing loans for acquiring replacement vehicles could consider seeking assistance from the two existing loan schemes, i.e., the "Small and Medium Enterprises Loan Guarantee Scheme" and / or the "Special Loan Guarantee Scheme". There is thus no need for creating a new loan scheme for vehicle replacement.

11. We therefore maintain that subject to the special arrangements at **Annex B** to allow for sufficient lead time for delivery of new vehicles and the preparations for seeking their first registration, the one-off grant scheme for pre-Euro and Euro I diesel commercial vehicles should come to an end by 31 March 2010 as planned. For the sake of securing better roadside air quality at the soonest, we should channel resources to encourage early replacement of other types of old vehicles not covered by the current scheme such as Euro II diesel commercial vehicles. In addition, we consider it necessary to revisit our proposal to introduce disincentives to discourage ownership and usage of aged commercial vehicles such as increasing their vehicle licence fees.

ENCOURAGE EARLY REPLACEMENT OF EURO II DIESEL COMMERCIAL VEHICLES

12. As explained in paragraph 3, Euro II diesel commercial vehicles emit up to 7 times more pollutants than Euro IV ones. There are at present some 28,000 registered Euro II diesel commercial vehicles, some of which are already 12 years old. Replacing them can bring about substantial air quality improvement to the roadside. Making reference to the scheme for pre-Euro and Euro I diesel commercial vehicles, we propose the following arrangement for introducing a one-off grant scheme for encouraging the early replacement of Euro II diesel commercial vehicles –

- (a) a one-off grant of the amount equivalent to 18% of the average vehicle taxable values will be provided to vehicle owners for scrapping their Euro II diesel commercial vehicles and replacing them with new vehicles complying with the prevailing statutory emission requirement for registration of new vehicles, which is currently Euro IV emission standard. The grant levels for various vehicle categories are set out at **Annex C**. In line with the grant scheme for pre-Euro and Euro I

diesel commercial vehicles, Euro II diesel commercial vehicles³ are classified according to their date of first registration;

- (b) the scheme will be made available for eligible vehicle owners for 36 months from its commencement date;
- (c) the grant will be pegged to the vehicle category to which the original vehicle or the replacement vehicle belongs, whichever amount is the less;
- (d) vehicles retired under the scheme must be scrapped and replaced with new vehicles compliant with the prevailing statutory emission standard in Hong Kong; and
- (e) subject to the funding approval by the Finance Committee of the Legislative Council, we aim to introduce the one-off grant scheme to replace Euro II diesel commercial vehicles from 1 July 2010.

13. The Financial Secretary has proposed in his 2010-11 Budget Speech to set aside \$540 million for this purpose. Subject to Members' support, we will seek the Finance Committee's approval of the funding to implement the grant scheme. This amount of provision should be able to provide one-off grant to replace some 26% of the registered Euro II diesel commercial vehicles, which is broadly in line with the take up rate of the existing scheme for pre-Euro and Euro I diesel commercial vehicles.

14. The estimated cash flow is as follows –

2010-11	2011-12	2012-13	Total
(\$ million)	(\$ million)	(\$ million)	(\$ million)
120	200	220	540

³ Details of the first registration dates of Euro II diesel commercial vehicles for different vehicle categories are at **Annex D**.

15. Like the existing one-off grant scheme, Transport Department will administer and implement the proposed scheme. The resource requirements for the Transport Department to upgrade and support the computer system and to handle the applications will be met from within EPD's operating expenditure envelope.

RAISING VEHICLE LICENCE FEES OF AGED COMMERCIAL VEHICLES

16. Older commercial vehicles, due to wear and tear of their engine components, tend to have more breakdowns and higher tailpipe emissions. This is particularly so for those vehicles not properly serviced and maintained. Replacing old commercial vehicles by new ones that are equipped with more advanced emission control devices can benefit roadside air quality considerably. However, relying solely on incentive schemes to expedite their replacement has proven to be not as effective as one would like to see. We would therefore propose to revisit the case for introducing suitable disincentive measures, such as increasing the vehicle licence fees for aged commercial vehicles, to discourage their continued ownership and usage. Subject to Members' views, we will draw up more concrete proposals for further consultation with the transport trades and other stakeholders.

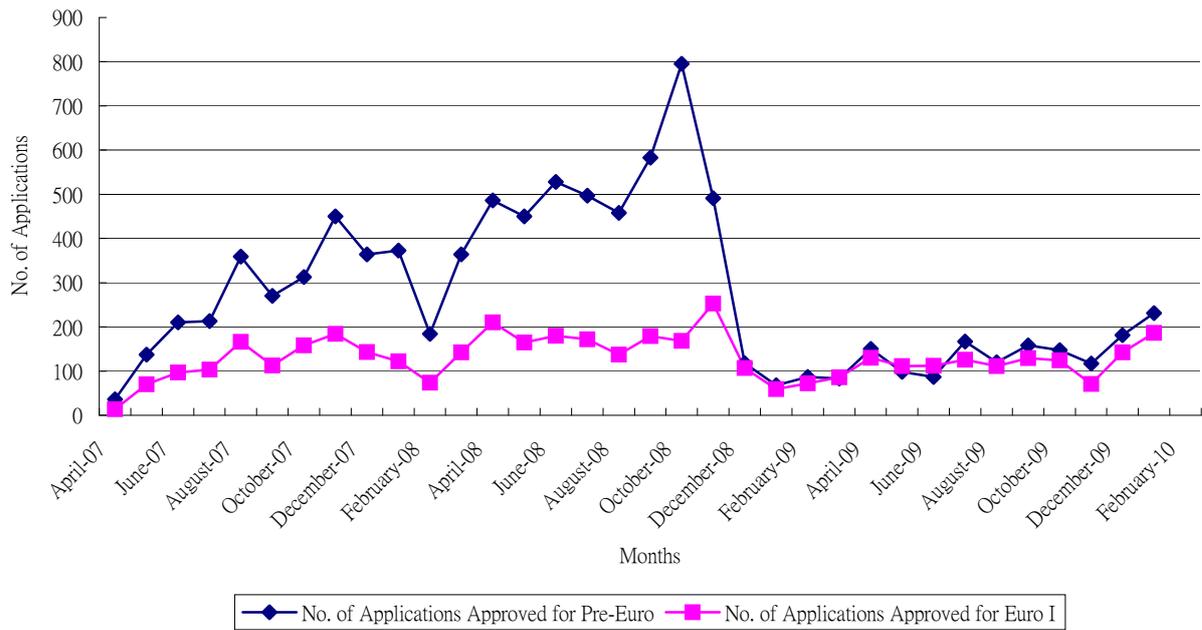
ADVICE SOUGHT

17. Members are invited to note the progress of the one-off grant scheme for encouraging the early replacement of pre-Euro and Euro I diesel commercial vehicles (paragraphs 6 - 11), and to advise on the proposal to offer a one-off grant to encourage early replacement of Euro II diesel commercial vehicles (paragraphs 12 - 15) and the proposal to map out more concrete proposals for raising the licence fees of aged commercial vehicles (paragraph 16).

Environment Bureau/Environmental Protection Department
March 2010

**The One-Off Grant Scheme
for Pre-Euro and Euro I Diesel Commercial Vehicles**

**The Number of Applications Approved
(April 2007 to January 2010)**



**The One-Off Grant Scheme
for Pre-Euro and Euro I Diesel Commercial Vehicles**

Special Arrangement

This special arrangement is to help those vehicle owners eligible for the one-off grant who have ordered new replacement vehicles that however cannot arrive on time or cannot complete preparations (such as vehicle body-building works) for applying for the one-off grant (i.e. on or before 31 March 2010) to retain their eligibility for the grant. Below are the requirements that vehicle owners will have to fulfill so as to retain the eligibility for the one-off grant -

- (i) The vehicle owner has to place an order for a new commercial vehicle which is eligible for the grant on or before 31 March 2010.
- (ii) He/She has to submit an application to Environmental Protection Department (EPD) using a prescribed form on or before 7 April 2010.
- (iii) The order form must provide information of the pre-Euro or Euro I diesel commercial vehicle which is intended to be replaced (such as the registration number, vehicle class, chassis number, first registration date and fuel type of the old vehicle) together with the vehicle class, make, model and the tentative arrival date of the new vehicle.
- (iv) The new commercial vehicle to be registered must be of the same vehicle model as stated in the application form for retention of eligibility.
- (v) If the vehicle owner sell his pre-Euro or Euro I commercial vehicle after 31 March 2010, both he and the new owner of the vehicle will not have the eligibility for the grant.

The application form for “Retention of Eligibility for the One-off grant up to 31 March 2011” can be obtained via fax on demand from EPD hotline 2824 0022 or downloaded from EPD’s website <http://www.epd.gov.hk/epd/>. The applicant is advised to read the Notes for Attention on the application form before completing the form.

The applicant must submit the duly completed application form together with the photocopy of following documents to the EPD on or before 7 April 2010:

- (i) The applicant's H.K. Identity Card or passport for non-identity card holders in the case of a private owner or in the case of a Limited Company, both the Certificate of Incorporation and Business Registration Certificate;
- (ii) The vehicle registration document of the pre-Euro or Euro I diesel commercial vehicle;
- (iii) The contract (i.e. the order form) with the vehicle supplier for ordering the new commercial vehicle and deposit receipt; the contract must contain information of the pre-Euro or Euro I diesel commercial vehicle which is intended to be replaced (such as the registration mark, vehicle class, chassis number, first registration date and fuel type of the old vehicle) together with the vehicle class, make, model and the tentative arrival date of the new vehicle, etc; and
- (iv) The contract should state the name of the applicant as the buyer; in case the applicant has appointed an agent to order the new vehicle on his/her behalf, the application must be accompanied with an authorization letter issued by the applicant for purchasing the new vehicle.

**The Proposed One-off Grant Scheme
for Euro II Diesel Commercial Vehicles**

The Level of the Proposed One-off Grant

The grant level is set at 18% of the annual average vehicle taxable values of newly registered vehicles in 2009. Details of the grant level are tabulated in the following tables (the figures of existing grant levels for Euro I vehicles are shown for comparison purpose only)–

Goods vehicles

Vehicle Category	Permitted Gross Vehicle Weight (W) Tonnes	Proposed Grant Levels for Euro II (\$)	Existing Grant Levels for Euro I (\$)
Light Goods Vehicle (Van Type)	$W \leq 1.9$	17,000	14,000
	$1.9 < W \leq 5.5$	36,000	30,000
Light Goods Vehicle (Non-van Type)	$W \leq 1.9$	27,000	25,000
	$1.9 < W \leq 5.5$	47,000	43,000
Medium Goods Vehicle	$5.5 < W \leq 10$	59,000	51,000
	$10 < W \leq 13$	70,000	61,000
	$13 < W \leq 16$	88,000	77,000
	$16 < W \leq 24$	121,000	97,000
Heavy Goods Vehicle	$24 < W$	139,000	113,000

Non-franchised public and private buses

Non-franchised public and private buses	Proposed Grant Levels for Euro II (\$)	Existing Grant Levels for Euro I (\$)
17 to 30 seats	84,000	73,000
31 seats and above	203,000	173,000

Public and private light buses*

Euro IV Diesel Light Bus	Euro IV LPG Light Bus	Electric Light Bus
\$77,000	\$88,000	\$92,000

*The grant levels for LPG and electric light bus have been adjusted in the light of an increase of vehicle taxable value of LPG light buses of about 15% between 2006 and 2009.

**The Proposed One-off Grant Scheme
for Euro II Diesel Commercial Vehicles**

**First Registration Dates for Identifying Euro II Diesel Commercial
Vehicles**

The first registration dates of Euro II diesel commercial vehicles for various vehicle classes are in the table below:

Vehicle Class	Permitted Gross Vehicle Weight (W) (Tonnes)	First Registration Date (1) (both dates inclusive)
Goods Vehicles	$W \leq 3.5$	1 Oct 1998 to 31 Dec 2001
	$3.5 < W \leq 4$	1 Oct 1998 to 30 Sep 2001
	$4 < W$	1 Apr 1997 to 30 Sep 2001
Non-franchised Buses	N.A.	1 Apr 1997 to 30 Sep 2001
Diesel Light Buses	$W \leq 3.5$	1 Oct 1998 to 31 Dec 2001
	$3.5 < W \leq 4$	1 Oct 1998 to 31 Jul 2003
	$4 < W$	1 Oct 1998 to 30 Sep 2001

Note: (1) These dates were the implementation periods of Euro II emission standards.