

**立法會**  
**Legislative Council**

LC Paper No. CB(1) 734/06-07  
(These minutes have been seen  
by the Administration)

Ref : CB1/PL/EA/1

**Panel on Environmental Affairs**

**Minutes of meeting**  
**held on Wednesday, 20 December 2006, at 8:30 am**  
**in Conference Room A of the Legislative Council Building**

**Members present** : Hon Audrey EU Yuet-mee, SC, JP (Chairman)  
Hon Emily LAU Wai-hing, JP (Deputy Chairman)  
Hon SIN Chung-kai, JP  
Hon WONG Yung-kan, JP  
Hon LAU Kong-wah, JP  
Hon Miriam LAU Kin-ye, GBS, JP  
Hon CHOY So-yuk, JP  
Hon LEE Wing-tat  
Hon Jeffrey LAM Kin-fung, SBS, JP  
Hon TAM Heung-man

**Member absent** : Hon Martin LEE Chu-ming, SC, JP

**Public officers attending** : **For item III**

Environmental Protection Department

Mr Roy TANG  
Deputy Director of Environmental Protection (3)

Mr MOK Wai-chuen  
Principal Environmental Protection Officer (Mobile  
Source Control)

**For item IV**

Environmental Protection Department

Mr Raymond FAN  
Deputy Director of Environmental Protection (2)

Mr Alfred LEE  
Assistant Director of Environmental Protection (Waste  
Management Policy)

Government Logistics Department

Mr Robert YIP  
Controller (Supplies Management)

Environment, Transport and Works Bureau

Mr Alex LI  
Chief Assistant Secretary for the Environment, Transport  
and Works (Works) 5

Electrical and Mechanical Services Department

Mr Stephen CHAN  
Acting Deputy Director/Regulatory Services

**Clerk in attendance** : Miss Becky YU  
Chief Council Secretary (1)1

**Staff in attendance** : Mrs Mary TANG  
Senior Council Secretary (1)2

Miss Mandy POON  
Legislative Assistant (1)4

---

Action

**I. Information paper issued since last meeting**

Members noted that no information papers had been issued since last meeting.

**II. Items for discussion at the next meeting**

- (LC Paper No. CB(1) 513/06-07(01) — List of follow-up actions  
LC Paper No. CB(1) 513/06-07(02) — List of outstanding items for discussion)

2. The Chairman advised that the Administration had requested to brief the Panel in early January 2007 on the outcome of the review of charges for sewage services. Subject to members' view, a special meeting might need to be held. She also drew members' attention to the paper prepared by the WWF Hong Kong setting out its concerns about the impact of the chlorination process under Harbour Area Treatment Scheme (HATS) Stage 2A as well as the Administration's response, both of which were tabled at the meeting.

3. Members agreed to discuss the following at the next regular meeting scheduled for Monday, 22 January 2007, at 2:30 pm –

- (a) Technical aspects of HATS Stage 2A; and
- (b) Progress of measures to improve air quality

They also agreed that deputation views would be invited to express views on item (a).

**III. Encouraging owners of Pre-Euro and Euro I diesel commercial vehicles to replace their vehicles by offering one-off grant**

- (LC Paper No. CB(1) 513/06-07(03) — Paper provided by the Administration)

4. The Deputy Director of Environmental Protection (3) (DDEP(3)) briefed members on the Administration's proposal to encourage the replacement of pre-Euro and Euro I diesel commercial vehicles with Euro IV models by offering a time-limited one-off grant.

5. Ms Miriam LAU enquired about the improvement to the air quality in Hong Kong which the proposal could achieve and how these could be assessed. She pointed out that despite the proclaimed success of the various schemes, including the Liquefied Petroleum Gas (LPG) Taxi Scheme and the Mandatory Scheme for pre-Euro heavy diesel vehicles to be retrofitted with emission reduction devices, in reducing vehicular emissions, there was no noticeable improvement to air quality. Hence, there was no guarantee that the implementation of the proposed scheme would bring back the clear skies. Concerted efforts were still required to improve air quality. DDEP(3) said that there were a number of factors affecting clear skies and vehicular emissions were one of them. The most reliable way to assess vehicular emissions was by way of monitoring roadside air quality. From 1999 to 2005, the period of time with readings showing poor roadside air quality had reduced from 956 hours to 419 hours, representing a 56% reduction. This had shown that the roadside air quality had been improving. It was expected that if all the 74 000 pre-Euro and Euro I diesel commercial vehicles were replaced by Euro IV models, the vehicular

emissions of respirable suspended particulates (RSP) and nitrogen oxides (NO<sub>x</sub>) would be reduced by 74% and 38% respectively and the roadside air quality would be further improved.

6. While acknowledging that diesel commercial vehicles were a major contributor of air pollution, accounting for 90% of the total vehicular emissions of RSP, Ms Miriam LAU was not convinced that they also contributed to 80% of the total vehicular emissions of NO<sub>x</sub> since according to her understanding, petrol vehicles were just as polluting as diesel vehicles in terms of NO<sub>x</sub> emissions. As regards the problem of smog, Ms LAU noted that this was also prevalent in Los Angeles in the 1970s, but the problem seemed to have been largely resolved in the 1990s through the implementation of smog checkers, which required vehicles to undergo frequent smog checks. She therefore held the view that instead of relying on costly incentive schemes targeting at different categories of vehicles in Hong Kong, there might be a need for Hong Kong and the Pearl River Delta Region to join forces in working out effective solutions in resolving the smog problem.

7. In response, DDEP(3) clarified that petrol vehicles emitted less NO<sub>x</sub> than diesel vehicles. It was estimated that the 340 000 petrol vehicles together with LPG vehicles and the 6 000 franchise buses accounted for the remaining 20% of NO<sub>x</sub> emissions. As for the problem of smog, DDEP(3) said that the situations in Hong Kong and Los Angeles were quite different. In Hong Kong, the two main sources of emissions were power plants and vehicles. Hence, emission caps, cleaner fuels and emission trading schemes were applied to power companies while incentives schemes and stringent vehicular emission standards were applied to transport trades to reduce emissions. The Principal Environmental Protection Officer (Mobile Source Control) supplemented that one of the major sources of smog in Los Angeles was volatile organic compounds (VOCs), mainly from vehicles. To this end, the Los Angeles Government had requested vehicle owners to install catalysts to reduce VOC emissions and put in place stringent petrol vehicle emission checking systems. Measures were also introduced to reduce VOC emissions from consumer products and petrol refilling stations. Similar smog prevention systems were implemented in Hong Kong and a regulation to control VOC emissions was being scrutinized by the Legislature. DDEP(3) added that the progress of measures to improve air quality, including regional air quality, had been scheduled for discussion by the Panel early next year and the Administration would be providing further details on the subject.

#### The proposed incentive scheme

8. Ms Emily LAU enquired about the basis upon which the cost of \$3,175 million for the proposed scheme was arrived at. DDEP(3) explained that the cost was worked out based on the number/types of vehicles, their designed weight and levels of incentives. However, there might be some discrepancies in the actual number of diesel commercial vehicles since some of the vehicle owners might have scrapped their vehicles without notifying the Transport Department while others might have transported their vehicles to the Mainland for use. An assumption was also made that half of the replacement vehicles for public and private light bus were LPG models while the half were diesel models. It was estimated that some

\$3,176 million would be incurred if all eligible vehicle owners took up the grant. The Government would be seeking funding based on this assumption as it would obviate the need to seek additional funding. Ms LAU said that she would prefer the Administration to use a more conservative estimate and to seek further funding if necessary as this would enable the Finance Committee to monitor more closely the progress of disbursement of funds.

9. Miss CHOY So-yuk said that the original purpose of the various incentive schemes was to improve air quality. However, as it turned out, the focus of the incentive schemes had been shifted to assist the transport trades to replace their vehicles. As the current proposal had no provisions to make the retirement of pre-Euro and Euro I diesel commercial vehicles mandatory, owners could choose to continue the use of their polluting vehicles as long as they wished. The extended duration of the incentive scheme until 2010 might also delay the replacement process as owners tended to replace their vehicles shortly before the expiry of the scheme. This would defeat the purpose of bringing early improvements to air quality. As Euro V would be introduced in 2009, she enquired if higher grant would be given for the replacement with Euro V diesel vehicles. She further enquired if the incentive scheme would apply to the replacement with used Euro IV vehicles.

10. In response, DDEP(3) said that the present incentive scheme aimed at encouraging the replacement of pre-Euro and Euro I diesel commercial vehicles so that the needed improvement to roadside air quality could be achieved. As Hong Kong would adopt the latest Euro emission standards for imported vehicles, the incentive scheme (which would last until 2010) would apply to Euro V vehicles when these were introduced in 2009. The scheme would however not be applicable to used Euro IV vehicles since it was meant to encourage the replacement of pre-Euro and Euro I diesel vehicles with new Euro IV commercial vehicles. He also could not agree to the allegation that the incentive scheme would delay the replacement process as according to the previous replacement scheme for diesel public light buses (PLBs) which was completed in 2005, the average age of diesel PLB being replaced was much shorter than its normal lifespan.

11. Referring to Annex D to the Administration's paper, the Chairman noted that the participation rate of the one-off grant scheme for the replacement of diesel PLBs was only 55%, and that the average age of the diesel PLBs at the time of replacement was 11.6 years which was not much shorter than the normal working lifespan of 14 years for a PLB. She therefore queried the efficacy of the present proposal, particularly in the absence of disincentives, such as higher annual licence fees or road restrictions, to deter the continued usage of polluting vehicles. DDEP(3) said that judging from the feedback from the trades on the one-off grant scheme for PLBs, they generally found the level of the incentives acceptable. The problem of queuing at the 12 dedicated LPG refilling stations had been resolved with the adjustments to their LPG ceiling price review mechanism. However, the progress of setting up additional LPG stations had been slow owing to the more stringent safety requirements for these stations and the concerns raised by District Councils. As such, PLB drivers who were operating on routes not close to LPG filling stations did not participate in the replacement scheme as refilling would incur more down time. To encourage these

operators to replace their diesel PLBs, the Administration had proposed to offer a grant of \$40,000 to encourage their replacement with Euro IV diesel models. As regard the proposal to restrict certain vehicles from entering certain areas during a specified timeframe, DDEP(3) said that this would be included in the context of the public consultation to be conducted by the Sustainable Development Council soon.

12. Ms Miriam LAU said that for the past 10 years, the transport trades had been cooperating with the Government as far as they could in the implementation of various initiatives, including the use of cleaner fuels and the retrofitting of emission reduction devices, despite the difficult business environment. The LPG Taxi Scheme was completed with great success and within the time limit because the switch was financially viable. The same success was however not found in the incentive scheme for diesel PLBs as there were operating difficulties associated with the switch. As for the present proposal, she anticipated that it would be welcomed by franchise buses but not lorries nor container trucks as the latter were facing difficult operating environment. She held the view that the funding of \$3,176 million would not be used up by the trades.

13. Mr SIN Chung-kai enquired if consideration would be given to encouraging earlier replacement by offering higher grants for those who opted to replace their polluting vehicles sooner. DDEP(3) said that the provision of incentives to encourage an earlier replacement had in fact been incorporated in the proposed scheme. The levels of grants being offered for the replacement of pre-Euro and Euro I diesel vehicles were 12% and 18% respectively of the average vehicle taxable value of newly registered vehicles in the same class. The grants would be made available for 18 months for pre-Euro diesel commercial vehicles and three years for Euro I diesel commercial diesel vehicles. It would create uncertainty to the trades if separate levels of grants were offered for different replacement periods.

14. Mr SIN Chung-kai expressed concern about the cost-effectiveness of the proposed scheme for cross-boundary vehicles. He enquired if the performance of Euro IV diesel models would be adversely affected by the use of the lower grade diesel commonly provided in the Mainland. DDEP(3) said that the RSP emissions from a new Euro IV diesel vehicle would be increased by 10% if a lower grade diesel was used. Of the 74 000 pre-Euro and Euro I diesel vehicles, about 8 000 were cross-boundary vehicles and these would not be stationed only in the Mainland but would be operating on both sides.

15. While supporting the proposal, Mr Jeffrey LAM noted with disappointment that no electric PLBs had been registered in Hong Kong so far despite an incentive of \$80,000 was offered as part of the one-off grant scheme that the Government had completed in 2005 for the replacement of diesel PLBs. This might be attributable to the requirement for frequent charging of batteries which was a major operational constraint to PLB operators. In view of the operational constraints of electric vehicles and the unavailability of charging facilities in Hong Kong, there was no point in encouraging the switch to electric vehicles when their performance was not entirely reliable. As the incentive replacement scheme for electric vehicles would not be practicable under the present circumstances, he enquired if the Administration would

take steps to improve the situation with the assistance from vehicle suppliers and transport trades. DDEP(3) said that it had all along been the Government's policy intent to encourage the use of electric vehicles with zero emissions. Electric vehicles were unpopular in Hong Kong because of the limited availability of electric models, which were mostly manufactured in the United States and Japan, the lack of charging facilities and operational constraints. However, the switch to electric models would be viable if bus fleets were prepared to install the charging facilities to facilitate.

16. Miss CHOY So-yuk enquired if the pre-Euro and Euro I diesel commercial vehicles scrapped under the scheme were still allowed to put to use or for export purpose. If so, the emission problems associated with the use of these vehicles would continue. DDEP(3) advised that owners were required to notify the Transport Department the scrapping of their vehicles and the vehicles concerned could no longer be put to use in Hong Kong. While no restrictions would be made on the export of scrapped vehicles, there was a limited market for the sale of these vehicles. The most common use which could be made from scrapped vehicles would be the recycling of their parts. In reply to Ms Emily LAU's request for information on the disposal of pre-Euro and Euro I diesel vehicles, DDEP(3) said that such information was not available as the Administration did not maintain records on the disposal of scrapped vehicles. Once the licences of the scrapped vehicles had been cancelled, no re-registration could be made and hence these vehicles could no longer be used on the roads in Hong Kong.

#### Disincentives to discourage the use of pre-Euro and Euro I diesel commercial vehicles

17. Ms Emily LAU enquired if there were other measures to reduce the number of pre-Euro and Euro I diesel commercial vehicles if owners did not choose to take part in the proposed incentive scheme. DDEP(3) said that the transport trades were strongly opposed to any plans to make the retirement of pre-Euro and Euro I diesel commercial vehicles mandatory. Vehicle replacement could be a heavy financial burden to operators because of the substantial capital investment. Given that the transport trades, in particular those involved in cross-boundary services, were facing a difficult operating environment, they would have financial difficulties in replacing their vehicles. If these vehicles were mandated to retire, those who could not afford to replace their vehicles would be forced to go out of business. Taking into account the difficulties of the trades, the Government did not have any plans to require the mandatory retirement pre-Euro and Euro I diesel commercial vehicles by a specified date. As regards overseas experience in this respect, DDEP(3) said that the Singapore Government had plans to introduce a requirement for the mandatory retirement of polluting diesel vehicles which were in use for 20 years or more. Ms LAU said that there was a need to consider additional measures to phase out the highly polluting pre-Euro and Euro I diesel commercial vehicles, after balancing the interests of the public and the trades.

18. Mr WONG Yung-kan noted that administrative measures were being contemplated in the Mainland to restrict heavy vehicles from entering the city centre. He enquired if the transport trades were aware of the proposed restrictions and whether similar restrictions would be considered in Hong Kong. DDEP(3) said that

according to his understanding, there were restrictions on the entry of trucks to the Shenzhen city centre at specified hours. However, the imposition of similar restrictions in Hong Kong would inevitably affect normal business operations given the space constraints in Hong Kong. This would also have adverse impact on the transport trades which were already facing a difficult time. Notwithstanding, cross-boundary vehicles would be made aware of the restrictions imposed in the Mainland.

Public consultation

19. Ms Emily LAU enquired about the anticipated participation rate of the scheme and whether public consultation had been conducted on the proposal given the substantial funding of \$3,176 million to be incurred. She said that while most members would welcome the proposal, she still considered it necessary that views from stakeholders, including the affected trades and green groups, should be sought. The Chairman echoed that she was not aware of any public consultation on the scheme despite that she had received some comments from green groups regarding the efficacy of the proposal which provided only incentives but not disincentives. Miss CHOY So-yuk supported that views on the proposal should be sought from trades and green groups. She hoped that the scheme could be successfully implemented so that more vehicle owners could participate in the scheme. Meanwhile, a mechanism should be worked out to encourage the early replacement of polluting vehicles.

20. DDEP(3) said that there would be little motivation for early replacement of polluting vehicles if no incentives were provided. While the Administration would endeavour to encourage the replacement of polluting vehicles with a view to improving the air quality in Hong Kong, it would be irresponsible for it to speculate on the participation rate of the scheme at the present stage. Besides, the participation of vehicle owners in the scheme was a business decision to be made taking into account their operating environment. He added that subject to members' view, the Administration intended to submit the proposal to the Finance Committee (FC) for consideration in February 2007 so that the scheme could be implemented on 1 April 2007.

21. Mr SIN Chung-kai expressed support for the proposal to be submitted to FC for consideration in February 2007, adding that he would not mind holding a meeting in January 2007 to gauge views on the proposal if this could be arranged in time. Ms Miriam LAU said that as most members were prepared to support the proposal despite that they were well aware of the objections raised by some of the green groups, she questioned the need for a special meeting lest this would create false expectations for the green groups. Besides, the trades and green groups could be invited to provide written submissions. Ms Emily LAU however supported that a special meeting should be held to gather public views.

22. After deliberation, members agreed that a special meeting would be held on Friday, 5 January 2007, at 3:00 pm or immediately after the House Committee meeting (whichever was the later) to discuss the following two subjects –

- (a) Encouraging owners of Pre-Euro and Euro I diesel commercial vehicles to replace their vehicles by offering one-off grant; and
- (b) Application of polluter-pays principle in the provision of sewage services

It was also agreed that deputations should be invited for discussion of item (a).

#### IV. Green measures in the Government

(LC Paper No. CB(1) 513/06-07(04) — Paper provided by the Administration)

23. At the Chairman's invitation, the Deputy Director of Environmental Protection (2) (DDEP(2)) introduced the Administration's paper on green measures in the Government. The Controller (Supplies Management), Government Logistics Department (C(SM)), Chief Assistant Secretary for the Environment, Transport and Works (Works)5 (CAS/ETW(W)5), and Acting Deputy Director of Electrical and Mechanical Services/Regulatory Services (DD(RS)) briefed members on the major green measures which the Government had adopted in the areas of procurement, public works and energy efficiency respectively.

#### Procurement

24. Mr LEE Wing-tat noted with concern that green products had only comprised 1% of the total purchase value of Government's procurement. He considered it necessary that more proactive actions should be taken by Government in encouraging green procurement, including the appointment of an independent green audit. DDEP(2) said that in the past four years, the Government had purchased more than \$180 million worth of green products. It was worth to note that among the major categories of products purchased by the Government, pharmaceuticals and computer systems (hardware and software) already represented 70% of the total purchase value. Other expenditure items, such as marine equipment and spare parts, telecommunication equipment, laboratory equipment, food and beverage, arms and ammunition etc, did not have green alternatives either. Government departments had given consideration, as far as possible and where economically rational, to purchase green products. Green specifications were also set out in the contracts for public works. C(SM) added that the Government Logistics Department was responsible for purchasing supplies for Government departments. With the assistance of the Environmental Protection Department (EPD), a study was commissioned in 2000 on the availability of green products. It was found that the number of green products available was somewhat limited. The study was updated between 2003 and 2006, and some additional green products were identified. Specifications on the use of these green products had since been included in Government contracts.

25. The Chairman enquired about the economic consideration to be given under the Government's green procurement policy since green products would tend to be more expensive. She also considered it necessary that more proactive efforts should be taken by the Administration to promote environmental practices by apprising the public the availability of green products to facilitate their purchase. DDEP(2) explained that the Government was obliged to procure green products subject to market availability. The Administration would continue its efforts in encouraging environmental practices and would keep pace with the latest technological development in the provision of green products. C(SM) added that when making procurement decisions, the Administration would incorporate green considerations in the marking schemes. By way of illustration, apart from product quality and economic considerations, additional marks under the marking scheme for the evaluation of recycled photocopying paper would be given to those products with higher percentage of recycled contents.

26. Ms Emily LAU noted that a number of discussions were held recently on the procurement of computer systems in Government departments and she hoped that there would be more coordination within the Government to ensure that the green procurement policy was adhered to. DDEP(2) said that EPD had been coordinating the implementation of the green procurement policy in the Government. It had held a number of workshops with departmental green managers to discuss green procurement, providing them with the latest information on green products.

27. Miss CHOY So-yuk enquired if a monitoring committee could be set up to oversee Government procurement and to provide updated information on the latest development of green products. DDEP(2) said that green procurement was an integral part of the Government's "Policy Framework for the Management of Municipal Solid Waste (2005-2014)". The Waste Management Sub-committee comprising environmental experts and green group representatives set up under the Advisory Council on the Environment were following up the implementation of the initiatives.

#### Energy efficiency

28. Mr LEE Wing-tat opined that the Government should take the lead in mandating the installation of green measures, such as photovoltaic systems, and energy saving measures in new Government buildings. He also enquired whether actions had been taken to encourage the installation of green measures in private buildings. DD(RS) said that all Government buildings were required to comply with the Technical Memorandum on Government works as well as Building Energy Codes. They were required to equip with renewable energy installations as far as possible. Between December 2005 and March 2006, 12 capital projects involving photovoltaic systems/solar energy water heating systems and energy efficiency features had entered Category B of public works. He added that the Shek Wu Hui Sewage Treatment Works had been using renewable energy derived from methane gas from digested sludge while the HKU SPACE Community College at Kowloon Bay had been installed with photovoltaic systems. As for private buildings, guidelines to deal with the technicalities associated with the application of renewable energy facilities had

been issued to building owners/management. Forums were held with the trades on the application of renewable energy and information was made available on the website of the Electrical and Mechanical Services Department.

29. Miss CHOY So-yuk sought information on the guidelines on Building Energy Codes, which in her view should be applicable to all existing buildings. DD(RS) said that while there were constraints in incorporating energy efficiency measures in existing buildings, efforts were being made to implement these measures as far as practicable. By way of illustration, most of the existing Government buildings had been replaced with energy efficient lighting systems. Air-conditioning systems which were due for replacement had been replaced with the more energy efficient water-cooling systems.

#### Public works

30. As the adoption of green rooftops had proven success in conserving energy, Miss CHOY So-yuk questioned why such feature had only been incorporated in the design of new Government buildings and not all buildings. She noted that schools were very willing to set up green rooftops as evidenced by a recent competition on green rooftops and hence more resources should be invested in this respect. As a step forward, consideration should be given to setting a certain percentage of space at the rooftop as green rooftops. CAS/ETW(W)5 explained that while green rooftops had been incorporated in the design of new Government building projects, it was worth to note that not all buildings were able to follow because some of the rooftops were installed with other facilities, such as solar systems and utility pipes, leaving insufficient space for planting. Notwithstanding, efforts would be made for the provision of green rooftops in existing buildings as far as practicable.

31. Ms Emily LAU enquired about the usage of recycled aggregates and recycled asphalt in public/private works projects. CAS/ETW(W)5 said that public works projects had been using the recycled aggregates supplied by a facility in Tuen Mun and the demand had exceeded supply at times .. About 10% of asphalt used in public projects was from recycled sources and it was expected that more recycled asphalt would be used with the development of more advanced recycling technologies. The general specification (GS) for public works projects set out the technical standards on the use of recycled construction materials, including the use of recyclable metal hoardings. Meanwhile, efforts were being made to promote the use of recycled construction materials to private sector construction projects. The GS was also made available to the private sector.

32. Miss CHOY So-yuk supported that the Administration should incorporate green considerations in its procurement, particularly in respect of products which had a wide variety of green alternatives. As for new Government construction projects, an assessment should be conducted on the applicability of renewable energy facilities and the use of environmental friendly building materials. There was also a need to appoint environmental managers in every Government Bureau to ensure that environmental practices were adopted in Government. DDEP(2) said that

specifications requiring the procurement of green products had already been set out in Government contracts. Therefore, only those contractors who were able to comply with green specifications could participate in public tenders. He also advised that green managers had been appointed in all Government Bureaux and Departments.

33. At members' requests, the Administration undertook to provide –
- (a) an updated information paper setting out green measures, with regard to members' views raised at the meeting;
  - (b) a written response to the submission from the Green Council on the green measures in the Government which was tabled at the meeting; and
  - (c) guidelines on Government procurement and the Building Energy Codes in electronic formats.

*(Post-meeting note: The submission from the Green Council was circulated under LC Paper No. CB(1)570/06-07(01).)*

**V. Any other business**

34. There being no other business, the meeting ended at 10:40 am.