

**Confirmed Minutes of the 174th Meeting of
the Advisory Council on the Environment
held on 8 November 2010 at 2:30 pm**

Present:

Prof Paul LAM, JP (Chairman)
Prof CHAU Kwai-cheong, JP (Deputy Chairman)
Mr Oscar CHOW
Prof FUNG Tung
Mr Michael JEBSEN, BBS
Mr Edwin LAU, MH
Mr Michael LEE
Dr MAN Chi-sum, JP
Mr TSANG Kam-lam, JP
Dr YAU Wing-kwong
Mr Carlson K S CHAN, JP (Secretary)

Absent with Apologies:

Ms Teresa AU
Dr Dorothy CHAN, BBS
Ms Betty HO
Prof Joseph LEE
Ir Dr LO Wai-kwok, BBS, MH, JP
Dr Alfred TAM
Prof WONG Ming-hung
Mr Simon WONG, JP
Dr Ray YEP
Prof Ignatius YU

In Attendance:

Ms Anissa WONG, JP	Permanent Secretary for the Environment
Mr C C LAY	Assistant Director (Conservation), Agriculture, Fisheries and Conservation Department
Mr C T LING	Assistant Director/Technical Services, Planning Department
Ms Esther LI	Acting Principal Information Officer, Environmental Protection Department (EPD)
Ms Josephine CHEUNG	Chief Executive Officer (CBD), EPD
Mr Steve TSOI	Executive Officer (CBD), EPD
Miss Kim KWAN	Executive Manager (CBD), EPD

In Attendance for Agenda Item 3:

Mr W C MOK, JP

Assistant Director (Air Policy), EPD

Mr Henry CHIN

Senior Environmental Protection Officer (Mobile Source)4, EPD

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Agenda Item 1 : Confirmation of the draft minutes of the 173rd meeting held on 11 October 2010

The draft minutes were confirmed without amendments.

Agenda Item 2 : Matters arising from the minutes of the 173rd meeting held on 11 October 2010

2. There were no matters arising from the minutes of the last meeting.

Agenda Item 3 : Pilot Green Transport Fund – Proposed implementation framework

(ACE Paper 16/2010)

3. Mr Henry Chin briefed Members on the key features of the proposed implementation framework of the Pilot Green Transport Fund (the Fund). The Council was consulted on the initial proposal of the Fund in May 2010. The aim of the Fund was to encourage public transport operators to employ green technologies with a view to improving air quality and reducing carbon emissions as well as nurturing the budding of green technologies in Hong Kong.

4. Two Members declared interest for their business involvement in the transport trade. Another Member declared interest as the organization he worked for was commissioned by the Environmental Protection Department (EPD) to help the preparation work of the Fund. The meeting agreed that the three Members could stay and continue to take part in the discussion as the purpose of the consultation was to gather views and suggestions from stakeholders for fine-tuning the implementation details.

5. In reply to a Member's enquiry about the types of transport to be covered by the Fund, Mr W C Mok confirmed that the scope of the Fund would include ferries but not ocean-going vessels. In general, public transport vehicles requiring registration under the Road Traffic Ordinance, together with goods vehicles and special purpose vehicles, were covered under the Fund. Non-road mobile machineries, such as standby generators, construction and agricultural machineries, were not covered. A separate proposal to control emissions of non-road mobile sources had been submitted to the Council in mid-2010.

6. A Member noted that one of the proposed guiding principles was to subsidize the capital cost of the hardware of the innovative green product but not the associated recurrent expenditure, such as operation, repair and maintenance costs. He asked whether new green products, such as fuel additives, which could reduce emissions significantly, would be eligible for the Fund. Mr W C Mok explained that the trial of fuel additives would not be covered under the Fund. The underlying consideration for subsidizing the capital cost was to reduce the level of risk the transport operators had to bear when trying out new green products. Upon successful completion of the trial, the transport operators were expected to continue developing the products and bear the associated recurrent expenditure.

7. A Member suggested that the Fund should allow some flexibility in defining the scope of eligible products as the principle of not subsidizing the recurrent costs might rule out the trial of some potential innovative green products. Hong Kong might lag behind other overseas countries in adopting such kind of products. Mr W C Mok noted the concern and said that the Administration would consider adopting a flexible approach for the Steering Committee to consider the eligibility of such kind of new green products on a case-by-case basis having regard to the development of technologies.

8. A Member asked whether technologies for modifying the vehicle engines, such as nanotechnology for frictionless cylinder devices to achieve better emission performance or software re-programming to reduce fuel consumption, could be covered under the Fund. Mr W C Mok said that these technologies would be covered under the Fund and they were similar to retrofitting after-treatment emission reduction devices.

9. A Member asked about the cases of modifying or retrofitting engines for homologated vehicles. Mr W C Mok explained that the Fund could cover new technologies for modifying or retrofitting engines of in-use vehicles for reduction of emissions. However, the coverage of such modification or retrofit would not affect the standing practice to conform to international homologated emission requirements for newly registered vehicles.

10. The Chairman agreed to the guiding principle that basic researches of new green technologies should not be covered under the Fund as there were other funding schemes set up for this purpose. He also agreed that the product under application should not be receiving or had received funding from other sources of the Government for the same purpose. He considered, however, attention should be paid to the scope of Government fund as some applications might be receiving other sources of fund from public or related bodies, such as the Hong Kong Jockey Club. It would be necessary to define the scope more clearly.

11. Upon a Member's enquiry about the subsidy level for an expensive alternative-fueled vehicle, Mr W C Mok explained that the subsidy level would be set as the price premium between the alternative-fueled vehicle and the conventional vehicle or half of the cost of the alternative-fueled vehicle, whichever was higher. The Fund would not cover the associated recurrent expenses. For trial of vehicles which might require the setting up of dedicated charging facilities or refilling facilities, the Fund would cover half of the setting up cost subject to the proposed limit for each application.

12. A Member noted the guiding principle that the technology of the innovative green product should likely be within the realm of affordability of the transport trades in respect of capital and operation costs. He asked whether this implied that expensive new alternative-fueled vehicles would not be eligible for the Fund. Mr W C Mok explained that applications for new technologies at different price range would be acceptable but the subsidy level was subject to the cap. In vetting the applications, the Steering Committee would decide the priorities having regard to a number of factors, including affordability and chance of success. The objective of the Fund was to encourage the introduction of innovative green transport technologies and help improve air quality and reduce greenhouse gas emissions. To ensure that the new technologies would be put into use, affordability was a key consideration in vetting the applications. The Chairman remarked that there might be a possibility that the initial cost of a new

technology was very high but the price could drop substantially if it was put into wider use.

13. A Member noted the guiding principle that the extent of performance improvement of the innovative green products should at least be comparable with that achieved by advanced technologies for similar applications. He considered that cost implications should be taken into account as some advanced technologies might be very expensive but there might be some relatively less advanced but cheaper alternatives. Moreover, the consideration of whether the product could be used for wider application in the market was important to ensure that the subsidy granted was worthwhile and the purpose of promoting wider use of green technologies could be achieved.

14. A Member asked whether there would be undertakings to require the applicants to adopt the proven technology for wider use in the market. Mr W C Mok explained that it would be difficult to set rigid requirements for the successful applicants to use the proven technology. Nonetheless, an applicant was required to undertake the completion of the trial as stated in the application, to make public the trial findings and share them with interested parties as directed by the EPD. This could facilitate effective sharing of trial experience and encourage adoption of the tested technologies by other trade operators.

15. A Member enquired about the way forward in making use of the proven new green technologies in case the operators found them not financially beneficial to market the product for wider application from a business point of view. Mr W C Mok said the most favourable scenario was that the Fund could help the promotion of reliable and durable green technologies which were within the realm of affordability of the transport trades in terms of capital and operation costs. On present showing, hybrid vehicles and electric vehicles were more promising options which could be further promoted by making use of the Fund.

16. A Member remarked that the objective of the Fund was to incentivize the transport sector to test out innovative green technologies in the local environment and apply them for use. The target group of applicants would be confined to a spectrum of transport trade operators. Tangible results would be expected from these applicants for achieving beneficial use of the one-off grant in the longer term. Mr W C Mok said that given the diverse mode of operation in the transport sector, there could be a number of potential groups of applicants

even within the same transport trade. By encouraging some operators in each transport trade to try out innovative green products, it was expected that other operators in the same trade would be motivated to follow suit if the trial was successful. The benefits brought about by the new technology could then be multiplied in the longer term.

17. On the information that the applicants had to provide to the Steering Committee, a Member noted that the applicant was required to provide an explanation on the reasonableness of the price of the product should it be a proprietary product from a single supplier. He suggested that the applicant should also be required to provide such information for products even with multiple suppliers so as to justify the appropriateness of the price levels since there were no market prices available for such new products. As regards the requirement that the applicant was required to report to the Committee for any decision to discontinue the usage of the green product, he considered that the Government should require the applicant to refund the subsidy already paid under such circumstances. Mr W C Mok explained that one of the provisions to be agreed by the applicant in receiving the subsidy was that the Government reserved the right to recover the subsidy from the applicant if the applicant failed to complete the trial as specified by the Steering Committee.

18. A Member asked whether the applicant was obliged to recover the full cost if the trial could not be completed. Mr W C Mok explained that it would be considered on a case-by-case basis by the Steering Committee having regard to the circumstances of the case.

19. Regarding the level of subsidy, a Member considered that in order to collect performance data of alternative-fueled vehicles under different operating conditions, the caps of the subsidy should allow a reasonable number of vehicles for the trial. Mr W C Mok explained that the proposed cap of \$3 million for each alternative-fueled vehicle with an upper limit of \$9 million for each application had taken into account this consideration. For example, a conventional double-decker bus cost about \$3 million and a hybrid double-decker bus cost twice as much. Thus, the upper limit of \$9 million per application could allow at least the testing of three vehicles under various circumstances. The actual amount of subsidy for each vehicle and each application would be determined by the Steering Committee. In examining the applications, the Steering Committee would consider whether the trials could fully reflect the applicability of the new

technologies having regard to the diverse mode of operation.

20. The Chairman enquired about the rationale for setting the cap of \$3 million for each alternative-fueled vehicle and upper limit of \$9 million for each application. Mr W C Mok explained that it was difficult to quote reliable estimates on the innovative green products. To ensure effective allocation of resources and avoid abuses, the cap was set by making reference to the cost of the relatively more expensive vehicles such as franchised buses. The estimated cost of a hybrid double-decker bus was \$6 million. Pitching the cap for each application at \$9 million could allow a bus operator to procure about three hybrid double-decker buses to test out performance of the vehicle under different operating environment. The caps should be more than enough for operators to procure less costly vehicles such as hybrid mini-buses and taxis. The budget of \$300 million for the Fund should be able to support trials of a considerable number of new products.

21. A Member noted that some electric vehicles or related components were very expensive. He considered that some flexibility should be allowed to the caps having regard to the market situation and cost of different technologies in order to provide sufficient incentives to the operators. Mr W C Mok said that consultation had been conducted with stakeholders from different sectors regarding the subsidy level. The general feedback was that the cap of \$3 million for each vehicle and upper limit of \$9 million per application were considered sufficient to encourage trials of new green technologies. There were suggestions for increasing the subsidy level which was proposed as the price premium between the alternative-fueled vehicle and the conventional vehicle or half of the cost of the alternative-fueled vehicle, whichever the higher. The proposed subsidy level would be reviewed in light of feedbacks received during the consultation period.

22. A Member asked about the criteria in assessing the effectiveness of the technology other than environmental performance and fuel consumption. Mr W C Mok explained that other criteria would include durability, reliability and level of maintenance cost of the product or technology. Common standards used by the trade would be used. Given the diversity and continuous evolution of technologies, it would be difficult to set specific yardsticks for the operational and environmental performance indicators. An independent third-party would be

engaged to evaluate the performance of the products under trial.

23. In reply to the Chairman's enquiry about the effectiveness of the Fund, Mr W C Mok said that one of the important considerations was whether the Fund could achieve its objective to encourage the introduction of new green technologies in the transport sector. It was noted that since the announcement of the Fund in the Budget Speech, there were favourable responses and enquiries from the trades, such as on electric vehicles and supporting systems of battery swapping stations and maintenance workshop chains.

24. The Chairman considered that the Steering Committee would play a vital role in the implementation of the Fund and asked about the composition of the Committee. A Member asked whether some of the ACE members would be appointed to the Committee. Mr W C Mok said that the Committee would comprise members from a wide spectrum, such as experts from the academic sector, professionals from the vehicle business and experienced operators from the transport trades as well as representatives from relevant government departments. Appointments of individual members had yet to be considered.

25. In reply to a Member's enquiry, Mr W C Mok confirmed that the Steering Committee would continue its monitoring role after completing the vetting process of the one-off grant. For example, the Committee would have to ensure that the applicants had discharged his duties stated in the applications within the trial period. The Member suggested that the Steering Committee be given a greater degree of flexibility in vetting the applications in view of the diversity and continuous evolution of technologies.

26. The Chairman summarized Members' views as follows –

- (a) the Council supported the proposed implementation framework of the Fund as motor vehicles were the major sources of roadside air pollution and the Fund could encourage the transport sector to test out green and low-carbon transport technologies and help improve air quality and reduce greenhouse gas emissions;
- (b) the Council supported the proposed guiding principles in general and suggested that –

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- (i) some flexibility should be allowed in defining the scope of eligible products, such as the coverage of fuel additives;
 - (ii) applicants should not be receiving or had received funding from other Government sources or public bodies for the same purpose;
 - (iii) whether the product could be used for wider application in the market and its cost implications were important considerations in the vetting process;
 - (iv) the applicant should provide an explanation on the reasonableness of the price of the product should it be a proprietary product, no matter the product was from a single supplier or multiple suppliers; and
- (c) the Council considered that the Steering Committee would play a vital role in the implementation of the Fund and the Committee should be given a greater degree of flexibility in vetting the applications in view of the diversity and continuous evolution of technologies.

Agenda Item 4 : Any other business

Tentative items for discussion at the next meeting

27. The agenda was being compiled. Members would be informed in due course.

Agenda Item 5 : Date of next meeting

28. The next meeting was scheduled for 13 December 2010.

**ACE Secretariat
November 2010**