# 立法會 Legislative Council

LC Paper No. CB(1)1471/12-13 (These minutes have been seen by the Administration)

Ref: CB1/PS/2/12/1

### **Panel on Environmental Affairs**

## Subcommittee on Issues Relating to Air, Noise and Light Pollution

## Minutes of the meeting held on Tuesday, 16 April 2013, at 2:30 pm in Conference Room 2B of the Legislative Council Complex

**Members present**: Hon Cyd HO Sau-lan(Chairman)

Hon Claudia MO

Hon WU Chi-wai, MH Hon Gary FAN Kwok-wai

Hon CHAN Han-pan

Dr Hon Kenneth CHAN Ka-lok

Hon KWOK Wai-keung Hon Dennis KWOK

Dr Hon Helena WONG Pik-wan Dr Hon Elizabeth QUAT, JP

Hon Christopher CHUNG Shu-kun, BBS, MH, JP

Hon Tony TSE Wai-chuen

Public Officers attending

: For item II

Ms Christine LOH

Under Secretary for the Environment

Mr Andrew LAI, JP

Deputy Director of Environmental Protection (3)

**Environmental Protection Department** 

Mrs Dorothy MA Principal Assistant Secretary for the Environment (Energy)2

Mr PANG Sik-wing Principal Environmental Protection Officer (Air Policy) Environmental Protection Department

Mr LI Kwok-keung Assistant Director/Electricity & Energy Efficiency Electrical & Mechanical Services Department

#### For item III

Ms Christine LOH Under Secretary for the Environment

Mr Andrew LAI, JP Deputy Director of Environmental Protection (3) Environmental Protection Department

Mr PANG Sik-wing Principal Environmental Protection Officer (Air Policy) Environmental Protection Department

**Clerk in attendance:** Ms Miranda HON

Chief Council Secretary (1)1

**Staff in attendance**: Miss Lilian MOK

Council Secretary (1)1

Miss Mandy POON Legislative Assistant (1)1

Action

#### I. Confirmation of minutes

(LC Paper No. CB(1)743/12-13 — Minutes of the meeting held on 29 January 2013)

The minutes of the meeting held on 29 January 2013 were confirmed.

**Action** 

- II. Current legislation and administrative measures on the control of air pollution and the associated public expenditure in the following areas
  - (a) Power sector, including the implementation of the Buildings Energy Efficiency Ordinance (Cap. 610) and the Mandatory Energy Efficiency Labelling Scheme
  - (b) Vehicles
  - (LC Paper No. CB(1)474/12-13(01) Administration's paper on "Current legislation and administrative measures on the control of air pollution and the associated public expenditure")
- 2. <u>The Subcommittee</u> deliberated (index of proceedings attached at the **Annex**).
- 3. <u>The Subcommittee</u> requested the Administration to provide for members' reference the details of the Pilot Green Transport Fund and a report on the progress of the Fund, including the number of applications received and approved, and the amount of subsidy involved, etc.

## III. Any other business

4. There being no other business, the meeting ended at 4:10 pm.

Council Business Division 1
<u>Legislative Council Secretariat</u>
11 July 2013

#### **Panel on Environmental Affairs**

## Subcommittee on Issues Relating to Air, Noise and Light Pollution

## Proceedings of the meeting on Tuesday, 16 April 2013, at 2:30 pm in Conference Room 2B of the Legislative Council Complex

Time marker	Speaker	Subject(s)	Action required
Agenda Item I - Con			
000334 - 000510	Chairman	The minutes of the meeting held on 29 January 2013 (LC Paper No. CB(1)743/12-13) were confirmed.	

Agenda Item II - Current legislation and administrative measures on the control of air pollution and the associated public expenditure in the following areas –

- (a) Power sector, including the implementation of the Buildings Energy Efficiency Ordinance (Cap. 610) and the Mandatory Energy Efficiency Labelling Scheme; and
- (b) Vehicles

000511 - 000625	Chairman	Opening remarks by the Chairman	
000626 - 001704	Chairman Ms Claudia MO Administration	Ms Claudia MO expressed concern about the environmental impacts of the demolition of the Yau Ma Tei Multistorey Carpark ("YMTMCB") and the rezoning of some portions of a site occupied by the Middle Road Multistorey Carpark Building from "Government, Institution or Community" to "Commercial". She enquired whether the Administration would consider reproviding YMTMCB after its demolition.  The Administration responded that to improve air quality on all fronts, a wide range of new policy initiatives would be developed and implemented, through cooperation and co-ordination of relevant government bureaux/departments ("B/Ds"). For example, the Environment Bureau ("ENB") and the Environmental Protection Department ("EPD") had been working closely with the Transport and Housing Bureau ("THB") on bus route rationalization. As with other new initiatives, inter-bureau discussions were underway.	

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		The Administration undertook to check with the Transport Department the factors that had been taken into consideration in deciding to demolish YMTMCB and the environmental impacts of the demolition.	
001705 - 002807	Chairman Mr Christopher CHUNG Administration	Mr Christopher CHUNG raised the following enquiries about –  (a) the emissions of liquefied petroleum gas ("LPG") vehicles; and	
		(b) the introduction of electric taxis into Hong Kong.	
		The Administration responded that –	
		(a) in general, the exhaust emissions of LPG taxis were less polluting than those of diesel taxis. However, when emissions reduction catalytic converters installed in LPG vehicles gradually wore out and were not replaced regularly, such vehicles could emit up to 10 times more nitrogen oxides than when the catalytic converters were in good condition. To control excessive emissions of LPG vehicles, a provision of \$150 million had been approved by the Finance Committee in 2012 for providing a one-off subsidy to assist vehicle owners to replace the catalytic converters and oxygen sensors of their LPG taxis and light buses. Thereafter, roadside remote sensing equipment would be deployed to identify LPG vehicles with excessive emissions. Owners of such vehicles would be required to repair their vehicles and put them through an emission test. The Electrical and Mechanical Services Department ("EMSD") had been monitoring the quality of LPG; and	
		(b) it was the Government's ultimate policy objective to have zero emission vehicles running across the territory. To boost the confidence of	

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		public transport operators in the use of electric vehicles, the Pilot Green Transport Fund ("the Fund") had been set up in March 2011 to provide subsidy to the trade to conduct trials on different types of electric vehicles. A number of applications for subsidy had been approved. Fund recipients were required to prepare interim reports six months after the grant to share the findings of the trials. The interim reports would also be made available on EPD's website for public viewing. Since the use of electric vehicles in Hong Kong was still at a very preliminary stage, the Administration would study whether a comprehensive switch of different types of vehicles, including taxis, light buses and buses, to electric ones could meet their respective operational needs and work out the next steps.	
		In response to the Chairman's enquiry about the operation of the Fund, the Administration explained that a total of \$300 million had been allocated to support the Fund. As of end April 2013, 44 applications for conducting trials on electric vehicles, including electric taxis, electric coaches, hybrid vehicles, etc., had been approved. About \$76 million of the Fund had been committed for those trials. Transport operators could apply to the Fund to try out different green and innovative projects subject to a maximum subsidy of \$9 million for each application.	
		As requested by Mr CHUNG, the Administration agreed to provide for members' reference the details of the Fund and a report on the progress of the Fund, including the number of applications received and approved, and the amount of subsidy involved, etc.	The Administration to provide information as requested in paragraph 3 of the minutes.
002808 - 003740	Chairman Mr WU Chi-wai Administration	Mr WU Chi-wai enquired whether the Administration would consider –	

Speaker	Subject(s)	Action required
	(a) offering energy efficiency incentive to or setting penalty targets with the two power companies to encourage them to save power consumption;	
	(b) restricting the provision of electricity charges subsidy to households with low electricity consumption; and	
	(c) encouraging members of the public to use bicycle/electric bicycles as a means of transport in new development areas ("NDAs") with a view to promoting low-carbon lifestyle.	
	The Administration responded that –	
	(a) as the Government would hold discussions with the two power companies on the interim review of the Scheme of Control Agreements soon, it could not provide relevant details at this stage. Nevertheless, it took note of public concern about energy saving and electricity tariffs;	
	(b) electricity consumption varied with a host of factors and it might not be feasible to draw conclusions as to whether an increase in electricity consumption was a result of the provision of electricity charges subsidy and/or any other factors; and	
	(c) cycling was not a major mode of transport in Hong Kong. In considering whether bicycle could be adopted as the main transport mode, cycling safety was the prime concern. Compared with urban areas, some new towns in the New Territories, where road traffic was less busy and population density was relatively low, had provided better conditions for cycling. Further discussion with relevant B/Ds (e.g. the Development Bureau ("DevB") and THB) on the planning and provision of cycle tracks	
	Speaker	(a) offering energy efficiency incentive to or setting penalty targets with the two power companies to encourage them to save power consumption;  (b) restricting the provision of electricity charges subsidy to households with low electricity consumption; and  (c) encouraging members of the public to use bicycle/electric bicycles as a means of transport in new development areas ("NDAs") with a view to promoting low-carbon lifestyle.  The Administration responded that —  (a) as the Government would hold discussions with the two power companies on the interim review of the Scheme of Control Agreements soon, it could not provide relevant details at this stage. Nevertheless, it took note of public concern about energy saving and electricity tariffs;  (b) electricity consumption varied with a host of factors and it might not be feasible to draw conclusions as to whether an increase in electricity consumption was a result of the provision of electricity charges subsidy and/or any other factors; and  (c) cycling was not a major mode of transport in Hong Kong. In considering whether bicycle could be adopted as the main transport mode, cycling safety was the prime concern. Compared with urban areas, some new towns in the New Territories, where road traffic was less busy and population density was relatively low, had provided better conditions for cycling. Further discussion with relevant B/Ds (e.g. the Development Bureau ("DevB") and THB) on the

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003741 - 005156	Chairman Mr CHAN Han-pan Administration	While acknowledging the effort made by the Administration in air pollution control, Mr CHAN Han-pan expressed concern that high density development had led to poor air ventilation, causing relatively high concentration of air pollutants at roadside. He enquired –	
		(a) about the measures to be implemented to improve roadside air quality, for example, providing air ventilation corridors on busy roads and in crowded areas; and	
		(b) whether the Administration would consider formulating a framework of air ventilation assessment, thereby providing an objective benchmark for air ventilation of different districts within the territory, and regulating residential developments which would create the "wall effect".	
		The Administration responded that –	
		(a) EPD had been encouraging franchised bus companies to use Euro IV or above buses as far as possible for running in busy corridors which were designated as pilot low emission zones. The target was to have only buses achieving Euro IV or above emission standard in such zones by late 2015; and	
		(b) apart from building safety, it had given due regard to the design and disposition of buildings, including the impact on air ventilation. A set of guidelines on air ventilation had been issued. Project proponents were encouraged to refer to and adopt the guidelines in their planning and designs. Given that air quality and urban planning involved many different policy areas, cross-bureaux and inter-departmental collaboration was crucial. As such, it would be more appropriate to discuss the issues with relevant B/Ds in a separate context and a broader perspective.	

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		The Administration further highlighted that in collaboration with THB, DevB and the Food and Health Bureau, ENB had published "A Clean Air Plan for Hong Kong" in March 2013 to articulate the air quality challenges facing Hong Kong as well as the relevant policies, measures and future plans to tackle the issue.	
		The Chairman remarked that representatives from DevB and THB might be invited to attend meetings of the Subcommittee in future with a view to facilitating members' discussion on any particular item.	
005157 - 010640	Chairman Mr KWOK Wai-keung Administration	Mr KWOK Wai-keung urged the Administration to be mindful of the possible implications of the implementation of various air quality improvement measures on relevant industries and trades.	
		In response to Mr KWOK's query about the effectiveness of bus route rationalization in improving roadside air quality, the Administration explained that although the major objective of bus route rationalization was not to reduce roadside emissions, the initiative would help enhance bus operation efficiency and reduce traffic congestion, thereby lowering pollutant emissions at roadside. Hence, the air quality benefits brought about by bus route rationalization should not be underrated.	
		Mr KWOK further enquired –  (a) whether each of the five efficiency grades under the Mandatory Energy Efficiency Labelling Scheme ("MEELS") could be sub-divided into sub-grades so as to specify more precisely how much energy an appliance was likely to consume, thereby facilitating the public in choosing energy efficient appliances; and	

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		(b) the feasibility and cost implications of using water-cooled air-conditioning systems ("WACSs") in domestic and non-domestic buildings in Hong Kong.	
		The Administration responded that –	
		(a) EMSD was conducting a review on MEELS, which was targeted to complete by the end of 2013. In proposing refinements to MEELS, the Administration would be mindful of the need to ensure that the public would understand the energy efficiency performance of the prescribed electrical appliances; and	
		(b) WACSs were more energy efficient than conventional air-cooled cooling systems. However, the conditions of individual buildings varied greatly and the structures of some aged buildings might not be able to cater for the installation of WACSs. As such, there was a number of	
		implementation issues associated with the wider adoption of WACSs that had to be further examined (e.g. technical feasibility, financial viability, infrastructure works requirements, health impact etc.). To subsidize building owners in enhancing the energy efficiency performance of their buildings, the	
		Buildings Energy Efficiency Funding Schemes had been launched in 2009. A vetting committee had been established to consider funding applications from building owners, which might in some cases involve the conversion of air-cooled air-conditioning installations into WACSs. Based on a rough estimate, about one in seven buildings in Hong Kong had benefited from the schemes.	
010641 - 011619	Chairman Dr Helena WONG	Dr Helena WONG enquired –	
	Administration	(a) whether the Administration had any	

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		concrete plan to examine the feasibility of wide-scale application of renewable energy ("RE") (e.g. solar power and wind power) in Hong Kong as well as to engage the two power companies or other private investors in the development of RE technologies; and	
		(b) whether there would be any legislative amendments to tighten the control of marine emissions.	
		The Administration responded that –	
		(a) a study conducted by the Hong Kong University of Science and Technology on the potentials of various forms of RE for wider local use indicated that solar power and wind power might not have high potential for development in the territory, given Hong Kong's geographical constraints. Although both power companies were exploring the feasibility of developing large-scale offshore wind farms in Hong Kong waters, such wind farms required substantial investments. The wind farms were expected to meet 1% to 2% of the total electricity demand of Hong Kong if they were put to operation as planned; and	
		(b) new initiatives would be put forward to control marine emissions. For example, legislative proposals would be drawn up for submission to the Legislative Council later in 2013 or in early 2014 to cap the sulphur content of locally supplied marine light diesel at 0.05%. The Administration would also introduce legislation to mandate ocean-going vessels to switch to cleaner fuels (with sulphur content not more than 0.5%) while berthing in Hong Kong waters. Furthermore, as recommended by the Director of Audit in his Report No. 59, the	

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		support for adopting the Ringelmann Chart as a reference to measure dark smoke emissions from vessels.	
011620 - 012506	Chairman Administration	Noting that a very large number of people were exposed to vehicular pollution on a daily basis, the Chairman enquired whether roadside air pollution posed the greatest public health risk in Hong Kong when compared with other emission sources, such as vessels and power plants.	
		The Administration admitted that roadside emissions were the major threat to public health because of their proximity and high population exposure. Hence, a three-pronged strategy targeting emissions from different types of vehicles in operation, including franchised buses, LPG taxis and light buses with dysfunctional catalytic converters, and diesel commercial vehicles, had been adopted to improve roadside air quality. It was expected that this would reduce the annual roadside level of nitrogen dioxide by about 40%, which was still not enough to meet the new Air Quality Objectives for this pollutant.	
		In response to the Chairman's further enquiry about the progress of the development of retrofit devices which would enable an air-conditioning system to run after the engine of a vehicle was switched off, the Administration responded that the Hong Kong Productivity Council had developed a retrofit device equipped with an automatic engine idle-stop system and an air-conditioning system powered by an auxiliary battery. The transport sector was welcomed to try out the new device. Nevertheless, the Administration had no plan to mandate the use of such device at this stage.	
		Referring to Mr KWOK Wai-keung's earlier enquiry about the provision of one-off subsidy to help vehicle owners to	

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		replace the catalytic converters installed in their LPG taxis and light buses, the Administration advised that the tender exercise for the supply and installation of catalytic converters had been closed and it would inform all tenderers of the results after tender assessment. It was estimated that the average cost of a catalytic converter would be around several thousands dollars and its service life would be about one to two years. The Administration therefore considered that the replacement would not impose a heavy financial burden on vehicle owners.	
012507 - 013415	Chairman Mr Tony TSE Administration	Mr Tony TSE supported the Buildings Energy Efficiency Funding Schemes, which aimed to promote building owners' awareness of the benefits of building energy efficiency and encourage them to take concrete action to seek improvements. In his view, owners of buildings with strata titles had been well supported by the schemes in pursuing energy efficiency initiatives for their buildings. The Administration supplemented that under the Buildings Energy Efficiency Ordinance (Cap. 610), with respect to a commercial building or the commercial portion of a composite building, the building owner was required to carry out energy audits for the central building services installations therein once every 10 years. The energy audits would help identify energy saving opportunities.  On the control of emission of air pollutants from power plants, the Administration explained that EPD was responsible for monitoring the emissions from power plants through a Technical Memorandum ("TM") which would cap the annual emissions of three air pollutants from the power sector. EPD would review the TM not less than once every two years to enable timely revision of the emission allowances for existing electricity works of the two power companies as stipulated in the TM.	

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		As regards the effectiveness of the Motor Vehicle Idling (Fixed Penalty) Ordinance (Cap. 611) in prohibiting idling of motor vehicle engines to tackle air pollution, the Administration explained that the Ordinance aimed to encourage drivers to develop green driving habits. Since the enactment of the Ordinance in December 2011, fixed penalty notices had been issued to 10 drivers so far for idling engines for more than three minutes as permitted by law. It would be difficult to assess the effectiveness of the Ordinance at this stage. Nevertheless, the Administration would continue to promote the idling prohibition through publicity and enforcement actions.	
013416 - 014348	Chairman Mr KWOK Wai-keung Administration	In response to Mr KWOK Wai-keung's enquiry about the feasibility of using biodiesel generated from food waste to reduce greenhouse gas emission, the Administration explained that —  (a) the use of biodiesel was part of the energy policy and its wider use would require further deliberation and consideration;  (b) to regulate marine emissions, legislative proposals would be drawn up to reduce the limit on the sulphur content of locally supplied marine diesel from 0.5% to 0.05%. According to the results of the trial conducted with the marine sector, it was technically feasible to switch to such low sulphur diesel ("LSD"). As it was expected that the demand for LSD would be increasing, the price of LSD would go down in future, thus narrowing the price gap between LSD and high sulphur diesel. In this way, the switch to LSD should not have substantial cost implications on the marine sector;  (c) biodiesel in pure form or in blends with motor vehicle diesel could be used to power motor vehicles; and	

Time marker	Speaker	Subject(s)	Action required
Time marker	Speaker	(d) in examining whether biodiesel could be used by local vessels, marine safety was the prime consideration of the Marine Department, given the busy traffic in Hong Kong waters. To help safeguard the quality of marine diesel, the Administration would make reference to international standards and overseas practices.  Referring to the motion debate on the use of biodiesel in Hong Kong at the Council meeting held on 27 March 2013, the Chairman noted that the KLM Royal Dutch Airlines had announced the use of biofuel for its flights. She enquired whether biodiesel could be used in the aviation industry. In reply, the Administration explained that in using biodiesel as aircraft fuel, aircraft engines had to be compatible with the specifications of aviation fuels.  The Chairman urged the Administration to encourage B/Ds to use biodiesel and promote the use of biodiesel as energy in the private sector through green	Action required
		procurement. For example, the Administration might procure more biodiesel to satisfy the laundry needs of various disciplined services that used uniforms.	

Council Business Division 1
<u>Legislative Council Secretariat</u>
11 July 2013