

立法會
Legislative Council

LC Paper No. CB(1)1692/12-13
(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 Friday, 26 April 2013 at 4:00 pm
in Conference Room 3 of the Legislative Council Complex

- Members present** : Hon Cyd HO Sau-lan(Chairman)
Hon WU Chi-wai, MH
Hon CHAN Han-pan
Dr Hon Kenneth CHAN Ka-lok
Hon KWOK Wai-keung
Hon Dennis KWOK
Dr Hon Elizabeth QUAT, JP
Hon Christopher CHUNG Shu-kun, BBS, MH, JP
Hon Tony TSE Wai-chuen
- Members absent** : Hon Claudia MO
Hon Gary FAN Kwok-wai
Dr Hon Helena WONG Pik-wan
- Public Officers attending** : **For item I**
- 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

The Chairman proposed and members agreed that the Subcommittee would proceed to discuss the Government's policies and administrative measures on the control of noise pollution and light pollution starting from the next meeting.

2. As requested by Mr Dennis KWOK, the Administration undertook to arrange a briefing for members on the PATH ("Pollutants in the Atmosphere and their Transport over Hong Kong") model and its assumptions at a future Subcommittee meeting.

(Post-meeting note: The subject of "Air quality modelling in Hong Kong" was discussed at the Subcommittee's meeting held on 28 June 2013.)

I. Cost-benefit analysis of the various measures taken to improve air quality

(LC Paper No. CB(1)838/12-13(01) — Administration's paper on "Cost-benefit analysis of the various measures taken to improve air quality")

3. The Under Secretary for the Environment ("USEN") stated that the Environment Bureau ("ENB") had commissioned a consultant to review Hong Kong's Air Quality Objectives ("AQOs") in 2007. The consultant had proposed a variety of emission control measures for improving air quality and achieving the recommended new AQOs for the Administration's consideration. A crude cost-benefit analysis of the various emission control measures had also been

conducted to provide a broad indication on their relative cost-effectiveness. Since then, the Administration had not undertaken any analysis on the costs and benefits of individual control measures. To better protect public health, relevant experts and academics had been engaged by the Administration to look into different air pollution problems and develop control strategies in the short, medium and long term.

4. The Deputy Director of Environmental Protection (3) ("DDEP(3)") then briefed members on the cost-benefit analysis of the 36 proposed emission control measures which were recommended to be implemented in three phases. He stressed that the estimates on costs and benefits of individual control measures were subject to various uncertainties and variations depending on the timing and details of implementation, market situations and community's response, etc. as stated in the "AQO Review Public Consultation" document issued in July 2009. The cost-benefit analysis should not be regarded as the only criterion for considering whether or not any of the proposed control measures should be implemented.

Cost-effectiveness of the proposed emission control measures

5. Noting that the estimated costs and benefits of the proposed control measures were quantified and valued in monetary terms, Mr Tony TSE expressed concern about the cost-benefit ratios of individual measures, particularly those under Phase III with relatively lower cost-benefit ratings. He enquired whether those measures with low cost-benefit ratings would not be implemented. In response, USEN advised that apart from the 36 proposed control measures, the Administration had been implementing other effective measures to improve air quality, for example, the voluntary incentive schemes to encourage early retirement of highly polluting diesel commercial vehicles ("DCVs") and fuel switch for ocean-going vessels ("OGVs") while at berth in Hong Kong waters. It was expected that the reduction of roadside air pollution and marine emissions would bring positive impact on public health.

6. DDEP(3) added that the cost-benefit analysis of the 36 proposed control measures had been published in Annexes E and F to the above consultation document. An extract of the two Annexes was attached to the discussion paper (LC Paper No. CB(1)838/12-13(01)) as appendices for members' reference. Along with the updating of AQOs, the Administration announced in January 2012 that it would step up the implementation of the 19 proposed emission control measures under Phase I as well as three additional measures. The latter included retrofitting Euro II and III franchised buses with selective catalytic reduction devices, installing remote sensing devices at roadside and conducting enhanced emission tests to strengthen control on emissions from petrol and liquefied petroleum gas vehicles, requiring OGVs to switch to cleaner fuels (with sulphur content not more than 0.5%) while at berth in Hong Kong waters,

and setting up an Emission Control Area in Pearl River Delta waters in the long run. Furthermore, the Chief Executive had proposed in his 2013 Policy Address new initiatives to tackle air pollution on different fronts.

7. At the invitation of the Chairman, DDEP(3) gave a brief update on the latest progress of the 19 proposed control measures under Phase I. He reiterated that the cost-benefit analysis was only one of the criteria for assessing whether the proposed emission control measures should be implemented. Any decision on implementation of the proposed measures should be taken and balanced against different considerations, including the potential implications of such measures on relevant industries and trades. In response to Mr Tony TSE's further enquiry, USEN advised that the Administration had planned to conduct short, medium and long-term studies to evaluate the cost-effectiveness of the new air quality improvement measures in the pipeline and to review the findings on a regular basis. Meanwhile, the Administration was discussing the details with some local universities, including the scope, framework and work schedule of the studies, as well as the level of resources required for the studies.

8. To provide a clearer picture on the various measures implemented to improve air quality, the Administration would provide a progress report on the 22 and other additional air quality improvement measures for members' reference.

(Post-meeting note: The progress report on the 22 and other additional air quality improvement measures provided by the Administration was circulated to members vide LC Paper No. CB(1)1122/12-13(02) on 24 May 2013.)

Implementation time frame for the proposed Phases II and III emission control measures

9. Noting that the new AQOs would be effective from January 2014 subject to the passage of the Air Pollution Control (Amendment) Bill 2013, Mr WU Chi-wai enquired about the implementation time frame for the proposed Phases II and III emission control measures. USEN responded that the Administration had focused on implementing the 19 proposed Phase I control measures as they could be implemented more readily. Amongst the 19 proposed measures, those that scored comparatively higher cost-benefit ratings were the end-of-pipe solutions and more cost-effective. As for the proposed Phases II and III measures, many of them cut across different policy areas and would require cross-bureaux and inter-departmental collaboration for their planning and implementation.

10. While acknowledging the difficulties in expediting efforts by different government bureaux and departments ("B/Ds") in launching air quality

improvement measures, Mr WU Chi-wai opined that more information on the involvement of individual B/Ds in the implementation of the 36 proposed emission control measures would facilitate members in monitoring the progress of the Administration's work in taking forward those measures. USEN assured members that the Administration would conduct timely evaluation of the effectiveness of different emission reduction measures and make available the findings to the public so as to engage the community in mapping out the way forward.

Marine emissions

11. Noting that marine emissions had become one of the largest pollution sources in Hong Kong, Mr KWOK Wai-keung opined that the Administration should consider focusing its resources on controlling emissions from vessels instead of vehicular emissions so as to make the best use of public money. Referring to Annex F to the discussion paper which showed that if the proposed Phases I and II control measures were implemented, the emission levels of sulphur dioxide ("SO₂") and nitrogen oxides ("NO_x") in the marine sector would be lower than those when all the proposed control measures of the three phases were implemented, Mr KWOK enquired whether the proposed Phase III control measures were not effective for further reducing marine emissions.

12. DDEP(3) explained that the proposed Phase III control measures were not meant to solely control air pollution caused by the marine sector. The reduction in emissions from marine vessels would be reflected in the implementation of the proposed Phases I and II measures. He further advised that the Environmental Protection Department ("EPD") compiled an emission inventory for Hong Kong every year to list out the quantities of emissions of major emission sources, thus facilitating the Administration to assess the effectiveness of emission control measures and identify areas where control actions should be stepped up. According to the emission inventory for 2011, public electricity generation, road transport and navigation were the three major emission sources. Marine vessels were the largest emission source of SO₂, accounting for 54% of the total SO₂ emission in Hong Kong. The vessels also emitted about 37% of respirable suspended particulates and 33% of NO_x in 2011. As such, OGVs, which contributed the bulk of the marine emissions, were the Administration's primary targets. Apart from regulating OGVs, the Administration had also formulated strategies targeting emissions from different types of vehicles in operation as roadside emissions were the major threat to public health due to their proximity and high population exposure.

13. Noting that the installation of on-shore power ("OSP") facilities at the new Kai Tak Cruise Terminal had not yet commenced, the Chairman expressed concern that considerable quantities of pollutants emitted by OGVs while berthing at the Cruise Terminal might be easily transmitted to Kowloon Central,

thus posing a health threat to the public. Mr WU Chi-wai echoed that neighbouring districts in Kowloon East such as Wong Tai Sin and Kwun Tong were also vulnerable to marine emissions. To control emissions from vessels berthing and sailing near populated areas, the Chairman enquired about the timetable for mandating OGVs to switch to cleaner fuels while at berth in Hong Kong waters.

14. USEN acknowledged that mandating fuel switch by OGVs at berth in Hong Kong waters could reduce marine emissions and bring improvement to local air quality. She advised that the Administration was consulting the shipping trade and preparing legislative proposals to mandate the use of low-sulphur fuel for OGVs while at berth in Hong Kong waters. It was planned that the legislative proposals would be submitted to the Panel on Environmental Affairs in July 2013, and introduced into the Legislative Council in the 2013-2014 legislative session.

15. As regards the installation of OSP facilities at the Kai Tak Cruise Terminal, USEN advised that the Cruise Terminal had already reserved space for such facilities so that vessels equipped with the necessary devices could connect to the grid when at berth once the OSP facilities were installed. The Electrical and Mechanical Services Department would also be carrying out a study to formulate an implementation strategy on the installation and operation of OSP facilities having regard to the relevant international standards and the management arrangements of the Cruise Terminal. Upon completion of the study, the Administration would seek funding from the Finance Committee for the installation works. Since there was a lead time for the installation of OSP facilities at the Cruise Terminal, the mandatory fuel switch for OGVs at berth in Hong Kong waters could be implemented more readily as and when the legislative proposals were passed. Mr WU Chi-wai urged the Administration to expedite the supply of OSP at the Cruise Terminal. Given the health risk posed by OGVs berthing at the Cruise Terminal, the Chairman recommended that the Administration should take other measures, such as promoting the switching-off of idling engines and taking forward the rationalization of bus routes, to prevent deterioration of the air quality in the neighbouring districts of the Cruise Terminal pending the commissioning of OSP facilities, so as to protect public health.

Retirement of pre-Euro IV diesel commercial vehicles

16. Referring to the proposal in the 2013 Policy Address to earmark \$10 billion as ex-gratia payment to encourage vehicle owners to replace their pre-Euro IV DCVs with cleaner models, Mr KWOK Wai-keung expressed concern about the levels of ex-gratia payment which were inversely correlated with the age of the vehicle to be scrapped. He was dissatisfied that under the present proposal, the retirement of the newer Euro III DCVs would be entitled

to a higher level of ex-gratia payment than the older and more polluting Euro I or II vehicles. He opined that the older and more polluting vehicles should be given a higher level of ex-gratia payment in an attempt to encourage their early replacement. Dr Elizabeth QUAT also expressed concern about the impact of the proposal on the transport trades and the livelihood of individual vehicle owners who might not be able to make substantive investment to replace their DCVs and would inevitably face much hardship in carrying on with their business.

17. DDEP(3) explained that under the current proposal, the levels of ex-gratia payment were not positively correlated with the quantities of pollutants emitted by the vehicles to be scrapped, but were linked inversely to the age of such vehicles in order to give extra impetus for owners of heavily polluting vehicles to replace their vehicles as early as possible. The levels of ex-gratia payment for eligible owners of polluting DCVs were set having regard to the "polluter pays" principle and prudent use of public money. The Administration considered that increasing the level of ex-gratia payment for owners of older and more polluting vehicles, who were indeed the polluters, might run contrary to the "polluter pays" principle. Apart from offering an ex-gratia payment to eligible vehicle owners, the Administration had also stepped up regulatory control to phase out highly polluting DCVs by stopping the renewal of licences for pre-Euro IV DCVs with effect from specified dates in phases. The most polluting pre-Euro and Euro I vehicles were proposed to be phased out by 1 January 2016, whereas the banning of Euro II and Euro III DCVs would be implemented on 1 January 2017 and 1 January 2019 respectively. USEN affirmed that the Administration was committed to phasing out highly polluting DCVs by incentivizing the replacement of pre-Euro IV DCVs and banning the use of such DCVs within a specified period in the coming years.

18. While agreeing in principle the ex-gratia payment arrangements under the present proposal, Mr WU Chi-wai proposed that the Administration should consider offering additional incentives to vehicle owners who replaced their aged and polluting DCVs early so that such vehicles would not remain on the roads and pollute the environment. He also supported the direction of replacing heavily polluting vehicles under an incentive-cum-regulatory approach.

Setting up of low emissions zones

19. Dr Elizabeth QUAT enquired about the feasibility of setting up pilot low emissions zones ("LEZs") at Wan Po Road in Tseung Kwan O. In response, USEN assured members that the Administration took note of members' concerns about LEZs. However, given the complexity of the issue, she considered it more appropriate to exchange views with members on the subject in a separate context at a later stage. Mr WU Chi-wai shared the view that the Administration should proactively consider designating LEZs at busy corridors,

where only environment-friendly vehicles would be allowed, to alleviate the problem of roadside air pollution.

20. DDEP(3) supplemented that since 2011, franchised bus operators had been encouraged to use cleaner buses for running in pilot LEZs in Central, Causeway Bay and Mong Kok, with the target of having only buses that met Euro IV or above emission standard in these three LEZs by late 2015.

Fuel mix for electricity generation

21. Mr KWOK Wai-keung referred to the Phase III emission control measure no. 32 proposing a fuel mix of 50% nuclear power and 50% natural gas and stated that he objected to the use of nuclear power. The Chairman also expressed objection to using nuclear power. Mr KWOK further enquired whether the Administration had new energy saving measures to minimize energy wastage and consumption. USEN responded that as the overall fuel mix and the existing electricity market regulatory framework would be reviewed and a public consultation would be held soon, she was unable to provide relevant details at this stage. Nevertheless, the Administration would continue to promote energy efficiency in general and in buildings in particular to save electricity consumption, thereby reducing emissions from power plants.

Provision of cycling networks

22. Noting that a comprehensive cycling track network was being constructed in the New Territories mainly for recreational purposes, Dr Elizabeth QUAT enquired whether the Administration would consider treating bicycle as a means of transport with a view to promoting low-carbon lifestyle. USEN responded that in deciding whether bicycle could be adopted as a main transport mode, further discussion with relevant B/Ds would be required. The latest development of the provision of cycling tracks in the territory was set out in "A Clean Air Plan for Hong Kong", which was published by ENB and other relevant B/Ds to articulate the air quality challenges facing Hong Kong as well as the relevant measures and policies to tackle the issue.

Adoption of light-emitting diode ("LED") for street lighting

23. Dr Elizabeth QUAT enquired about the latest progress made by the Administration in taking forward the emission control measure of adopting LED for street lighting in Hong Kong. DDEP(3) advised that the Highways Department had been conducting trials on LED street lights along selected streets. In parallel, the Housing Department had been conducting trial application of LED lighting system at selected public rental housing estates.

24. The Principal Environmental Protection Officer (Air Policy) supplemented that as the trial schemes of LED street lights were underway, the costs and benefits of using LED street lights were to be assessed at a later stage. Nevertheless, the electricity saving potential of using LED for street lighting would not be substantial as energy efficient lamps were already used as street lights. The Administration would provide the latest progress of the adoption of LED for street lighting in the progress report on the different air quality improvement measures for members' reference.

II. Date of next meeting and item(s) for discussion

(LC Paper No. CB(1)923/12-13(01) — List of outstanding items for discussion)

25. The Chairman proposed and members agreed that the next meeting be held on Friday, 10 May 2013, at 10:45 am to discuss the "Current legislation and administrative measures on the control of noise pollution and the associated public expenditure, as well as cases of noise pollution and mitigation measures".

(Post-meeting note: The meeting on 10 May 2013 was subsequently cancelled to avoid clashing with the anticipated continuation of the Legislative Council meeting on that day. Discussion of the above item was deferred to the meeting on 31 May 2013.)

III. Any other business

26. There being no other business, the meeting ended at 5:22 pm.

Council Business Division 1
Legislative Council Secretariat
13 August 2013