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Panel on Environmental Affairs

Meeting on 27 April 2015

**Background brief on "Progress of air quality improvement measures"
prepared by the Legislative Council Secretariat**

Purpose

1. This paper provides background information on the air quality improvement measures implemented by the Administration, and gives a brief account of the views and concerns expressed by members of the Panel on Environmental Affairs ("the Panel") and the Subcommittee on Issues Relating to Air, Noise and Light Pollution ("the Subcommittee") formed by the Panel on the subject.

Background

Air quality management in Hong Kong

2. According to the Administration, Hong Kong has been facing two air pollution issues. One is local street-level pollution. The other is the regional smog problem. Diesel vehicles are the main source of street-level pollution. Smog, however, is caused by a combination of pollutants from motor vehicles, marine vessels, industry and power plants both in Hong Kong and in the Pearl River Delta ("PRD") region.

3. The Government's overall policy objective for air quality management in Hong Kong is to achieve as soon as reasonably practicable and to maintain thereafter an acceptable level of air quality to safeguard the health and well being of the community, and to promote the conservation and best use of air in the public interest. In this regard, the Government put in force an updated Hong Kong's Air Quality Objectives ("AQOs") on 1 January 2014¹ to further protect public health.

¹ The Air Pollution Control (Amendment) Ordinance 2013 was enacted in July 2013 to set out the new AQOs in the Ordinance and to provide for the review of the AQOs at least once every five years after the commencement of the new AQOs.

4. The new AQOs², which are benchmarked against a combination of interim and ultimate targets under the World Health Organization's Air Quality Guidelines, are broadly comparable to the air quality standards adopted by the European Union and the United States. To attain the new AQOs, the Government has put forward a wide range of new air quality improvement measures which cover various measures to reduce emissions from roadside, power plants, industrial/commercial processes, and non-road mobile machinery.

5. In parallel, the Environment Bureau ("ENB") released "A Clean Air Plan for Hong Kong" on 28 March 2013 which set out in detail the various measures to tackle air pollution from power plants, land and sea transport, and non-road mobile machinery and to strengthen collaboration with Guangdong to deal with regional pollution.

Study and recommendations of the Subcommittee on air pollution

6. Given the public concern and the significant impact of air, noise and light pollution on public health, the Panel decided at its meeting on 26 November 2012 to appoint the Subcommittee to study issues relating to air, noise and light pollution for better protection of public health. On the air pollution front, the Subcommittee has focused its work on, inter alia, examining and reviewing the Government's initiatives to address the air pollution problem, including measures to control emissions from motor vehicles, power plants, and local industrial and commercial processes, progress of the joint efforts with the Guangdong Provincial Authorities to tackle the regional air pollution problem, and implementation of the new AQOs.

7. The Subcommittee concluded its work in early 2014, and come up with a series of recommendations in respect of the following aspects –

- (a) impacts of air pollution on public health and the associated medical costs;
- (b) air pollution control and the associated public expenditure;
- (c) cost-benefit analysis of the measures to improve air quality; and
- (d) air quality assessments under the environment impact assessment ("EIA") mechanism.

² AQOs stipulate the concentration levels for seven major air pollutants, of which sulphur dioxide (SO₂), nitrogen dioxide, and particulate matters with a diameter of 10 micrometres or less (PM₁₀) are the most relevant and significant ones in Hong Kong.

8. To follow up on the recommendations of the Subcommittee, the Panel held a meeting with the Administration on 17 July 2014. The Administration also provided a written response to the recommendations made by the Subcommittee. The details are set out in **Appendix I**.

Major initiatives highlighted in the 2015 Policy Address and 2015-16 Budget

9. On 26 January and 23 March 2015, the Administration briefed the Panel on the key initiatives to address air pollution problems in the 2015 Policy Address and 2015-16 Budget. These include -

- (a) introducing a new legislation to control emissions from Ocean-going Vessels ("OGVs")³;
- (b) extending the port facilities and light dues incentive scheme for OGVs for 30 months up to 31 March 2018;
- (c) subsidizing the franchised bus companies to procure electric buses for trials⁴;
- (d) promoting electric vehicles ("EVs");
- (e) setting up low emission zones by restricting access to low emission franchised buses⁵;
- (f) implementing an incentive-cum-regulating approach to phase out pre-Euro IV diesel commercial vehicles ("DCVs") by end 2019⁶;
- (g) providing an one-off subsidy to replace catalytic converters and oxygen sensor of liquefied petroleum gas ("LPG") taxis and light buses⁷;
- (h) setting up a roadside remote sensing system to screen petrol and LPG vehicles with excessive emission;

³ The Government tabled the Air Pollution Control (Ocean Going Vessels) (Fuel at Berth) Regulation to Legislative Council ("LegCo") on 18 March 2015 for negative vetting to mandate OGVs to switch to compliant fuel while at berth in Hong Kong waters. The regulation will take effect on 1 July 2015.

⁴ The relevant funding proposal (see [FCR\(2012-13\)48](#)) was approved by the Finance Committee ("FC") on 13 July 2012.

⁵ The Panel received a briefing by the Administration on "Progress of setting up of Low Emission Zones" at its meeting on 23 March 2015.

⁶ The relevant funding proposal (see [FCR\(2013-14\)52](#)) was approved by FC on 10 January 2014.

⁷ The relevant funding proposal (see [FCR\(2012-13\)7](#)) was approved by FC on 13 April 2012.

- (i) introducing a new legislation to control emissions from non-road mobile machineries⁸; and
- (j) extending the Cleaner Production Partnership Programme⁹ to another five years to facilitate Hong Kong-owned factories in both Hong Kong and the PRD region to adopt cleaner production technologies.

10. Details of the initiatives are set out in the Administration's papers LC Paper Nos. CB(1)436/14-15(01) and CB(1)652/14-15(03) for the Panel meetings on 26 January and 23 March 2015.

Members' views and concerns

11. The major views and concerns expressed by members of the Panel at the Panel meetings on 17 July 2014, 26 January and 23 March 2015 are summarized in the ensuing paragraphs.

Promotion of EVs

12. Some members sought elaboration on how the Administration would promote the use of EVs on a wider scale. As the cost of procuring an EV was higher than its petrol or diesel counterparts, some members suggested that the Administration should consider providing financial incentives for prospective buyers to purchase EVs and setting a target on the number of EVs to be used in Hong Kong.

13. The Administration advised that the number of EVs in Hong Kong had been increasing progressively in recent years. To promote the use of EVs, the First Registration Tax for EVs was waived till 31 March 2017. Unlike other cities in the world, a significant number of daily passenger journeys in Hong Kong were made on public transport. The Administration had set up the Pilot Green Transport Fund for testing green and innovative technologies applicable to public transport. The Government was also fully subsidizing the franchised bus companies to procure hybrid and electric buses for trial.

14. Some members opined that as the number of EVs in Hong Kong would continue to increase, the Administration should further enhance the charging network for EVs. The Administration advised that at present, there were about

⁸ The Government tabled the Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation to LegCo on 28 January 2015 for negative vetting to introduce statutory control on the emissions from non-road mobile machineries. The regulation will take effect on 1 June 2015.

⁹ The Panel received a briefing by the Administration on "Extension of Cleaner Production Partnership Programme" at its meeting on 25 February 2015.

1 100 standard EV charging points in Hong Kong, covering all 18 districts in various types of buildings. In addition, over 100 medium charging points had been set up in 2014 in various districts to shorten the charging time.

15. On the members' concern about the installation of charging facilities for EVs in new and existing buildings, the Administration advised that it had been encouraging property developers, property management companies and car park operators to set up charging facilities. The Development Bureau announced in October 2010 that gross floor area concessions would be granted to car parks which were "EV charging-enabling" with an aim to supporting the growth of the EV fleet.

Promotion of electric buses

16. Noting that the Administration was fully subsidizing the franchised bus companies to procure six double-deck hybrid buses and 36 single-deck electric buses for trial on a number of routes, some members enquired how the Administration would encourage the bus operators to use hybrid and electric buses on a much larger scale in order to tackle roadside air pollution at busy corridors.

17. The Administration responded that all the hybrid buses had started operation by end of 2014 while the electric buses would commence operation progressively starting from mid 2015. The duration of the trial period would be two years. Subject to the operational efficiency and performance of hybrid and electric buses under local conditions, ENB and the Transport and Housing Bureau would further examine with the franchised bus companies the possibility of wider application of such buses in Hong Kong, taking into account the affordability for the bus companies and passengers.

Promotion of environment-friendly commercial vehicles

18. Noting that the qualifying standards for environment-friendly heavy duty commercial vehicles would be tightened to Euro VI starting from 1 April 2015 and only vehicle models that met the standards would be eligible for a first registration tax concession, some members expressed concern that the limited supply and high selling prices and maintenance costs of Euro VI heavy duty commercial vehicles might cause a huge impact on transport operators, in particular owners of "single vehicles" who were also drivers relying on the use of their vehicles to earn a living. The Administration assured members that it had been monitoring the supply of Euro VI heavy duty vehicles, and more models of such vehicles would be available in the market.

19. Some members expressed concern that under the ex-gratia payment scheme for phasing out pre-Euro IV DCVs, there was a surge of demand for DCVs of Euro IV or higher emission standards. The transport trades were

worried that they might not be able to replace their pre-Euro IV vehicles with new ones complying with Euro IV or above standards before the specified phasing-out deadlines. Members asked if the Administration would consider making special arrangements to allow owners of pre-Euro IV DCVs who had already placed orders for new replacement vehicles during the application period to retain their eligibility for the grant.

20. The Administration responded that since its launch in March 2014, the ex-gratia payment scheme had received good response. The Administration considered that there should be adequate capacity in the market for the owners of the remaining pre-Euro heavy vehicles to scrap their vehicles and acquire a replacement before the ex-gratia payment application deadline provided that the vehicle owners acted early. The Administration would further remind owners of pre-Euro IV DCVs of the retirement deadline to facilitate them to make necessary preparation and arrangements as early as possible. The Administration also welcomed the transport trades to liaise with them should they encounter any difficulties in phasing out their pre-Euro IV DCVs.

Reduction of marine emissions

21. Some members sought elaboration on the latest progress of installing onshore power ("OSP") facilities at the Kai Tak Cruise Terminal ("KTCT") to reduce emissions from vessels and improve air quality in the coastal areas.

22. The Administration advised that in November 2013 the Environmental Protection Department ("EPD") had entrusted the Electrical and Mechanical Services Department to engage a consultant to study the technical feasibility of installing OSP facilities at KTCT having regard to the relevant international standards and the technical requirements. The consultant had completed the study and EPD was examining the study report and considering relevant issues for installing OSP. The Administration would report the findings and recommendations on the installation of OSP facilities at KTCT to the Legislative Council in due course.

Air quality in the PRD region

23. Referring to the Ten Air Pollution Prevention and Control Measures in the Mainland promulgated by the State Council in September 2013, some members enquired whether the Administration would incorporate heavy pollution weather into its ad hoc contingency management plan and put in place contingency measures to alleviate the level of pollution during heavily polluted weather.

24. The Administration responded that air quality had always been high on the agenda of the Government. In late December 2013, the Administration launched the Air Quality Health Index ("AQHI") which was a health risk-based index to estimate the short-term health risk caused by air pollution and provide

timely and useful air pollution information to the public. Health advice would be given to people with different degrees of susceptibility to air pollution when AQHI reached high or above categories.

Air quality assessments under EIA

25. Noting that public health assessment was not a mandatory requirement for designated projects specified in the Environmental Impact Assessment Ordinance (Cap. 499) ("the EIAO"), some members urged the Administration to review the scope of the Technical Memorandum issued under the EIAO ("TM-EIAO") to include the procedures, guidelines and criteria for conducting a comprehensive public health assessment on designated projects for reference of project proponents in order to better protect public health. The Administration responded that it would consider the need for revising the scope of TM-EIAO to include public health assessments in EIA studies as and when necessary in future.

26. Some members pointed out that as EIA reports contained very limited information on the air quality data or assumptions used in the Pollutants in the Atmosphere and their Transport over Hong Kong ("PATH")¹⁰ model to simulate the background air quality of a project over the whole PRD region including Hong Kong, some green groups and academics had reservations on the conclusions of EIA studies. To enhance the transparency of Hong Kong's air quality modelling systems, there was a suggestion that the data or assumptions used in the PATH model should be made available to the public. The Administration advised that EPD aimed to launch the new PATH for air quality assessment in January 2015. The Administration would brief the Panel on the application of the new PATH model for air quality assessment in Hong Kong.

Council questions

27. At the Council meetings on 17 July 2013, 16 April, 11 and 25 June, and 26 November 2014, Hon Kenneth CHAN, Hon LEUNG Yiu-chung, Hon CHAN Hak-kan, Dr Hon KWOK Ka-ki and Hon Dennis KWOK raised questions relating to air quality. Issues covered in the questions included whether the Administration would conduct a comprehensive review of the number and distribution of air quality monitoring stations; whether the Administration would set up an emission control area in PRD waters in the long run; whether the Administration had assessed the impacts of fine suspended particulates on human health; whether various bureaux and departments had jointly devised measures to improve air quality; and the progress of upgrading

¹⁰ PATH is a modelling system to assess the impact of air quality caused by air pollutant emissions at a certain location. PATH is extensively used in environmental impact assessment studies. The PATH system comprises meteorological, chemical and transport modules, and each module involves sophisticated scientific theories and calculation.

PATH. The Council questions and the Administration's replies are hyperlinked in **Appendix II**.

Other relevant information

28. In October 2012, the Director of Audit conducted a review of the Government's effort in improving the air quality in Hong Kong. Two Audit Reports were issued, namely, "Monitoring and reporting of air quality" and "Implementation of air-quality improvement measures" (see Chapters 1 and 2 of the Director of Audit's Report No. 59). Subsequently, the Administration provided the latest progress of implementing the Director of Audit's recommendations on issues covered in Report No. 59. The relevant progress reports were issued to Panel's members vide LC paper Nos. CB(1)930/13-14(01) and CB(1)553/14-15(01) on 18 February 2014 and 16 February 2015 respectively.

Recent development

29. The Administration will report at the Panel meeting on 27 April 2015 on the progress of the implementation of air quality improvement measures including the first annual report on the progress of phasing out pre-Euro IV DCVs.

Relevant Papers

30. A list of relevant papers is set out in **Appendix II**.

The Administration's Response towards the Recommendations of the Subcommittee on Issues Relating to Air, Noise and Light Pollution ("the Subcommittee") relating to issues on Air Pollution and Interfacing of Air Quality Assessments under the Environmental Impact Assessment ("EIA") Mechanism

	Recommendations of the Subcommittee	Response from the Administration
	<u>In respect of impacts of air pollution on public health and the associated medical costs</u>	
(a)	<i>expeditiously engage experts and academics to undertake research to enhance community awareness of the benefits of environmental protection and to enlist public support for anti-pollution policies in the long run.</i>	<p>We commissioned local experts and academics in early 2014 to conduct three studies for –</p> <ul style="list-style-type: none"> (i) developing a methodology suitable for evaluating and quantifying the adverse health outcomes and their associated costs; (ii) ascertaining the personal exposure to PM2.5; and (iii) exploring the feasibility of using biomarkers for assessing sub-clinical health effects. <p>These studies are targeted for completion by the end of 2015.</p>
(b)	<i>take into account other economic losses, such as decrease in foreign investment, in the calculation of the costs of air pollution in Hong Kong.</i>	The study mentioned in response to (a)(i) above will also take into account other economic losses and provide a tool for estimating the economic impacts of air pollution.
(c)	<i>ensure that the Central Policy Unit and various Bureaux and Departments ("B/Ds"), particularly Environment Bureau ("ENB"), earmark sufficient funding for local higher education institutions and other organizations to conduct applied research studies to assist the Administration in formulating environmental policies and initiatives.</i>	<p>ENB/Environmental Protection Department ("EPD") have been engaging experts including those in the academia to conduct studies on a need basis and will continue to do so.</p> <p>Tertiary institutions and other non-profit making organizations can also apply to the Environment and Conservation Fund for research studies and activities for the promotion of environmental protection and conservation.</p>

	Recommendations of the Subcommittee	Response from the Administration
(d)	<i>designate ENB and if necessary, set up a higher level authority to spearhead cross-B/Ds efforts in taking forward environmental and anti-pollution and initiatives with focus on the protection of public health.</i>	ENB/EPD, in collaboration with the Food and Health Bureau ("FHB") and Department of Health ("DH"), has been spearheading cross-B/Ds efforts in taking forward environmental and air pollution control initiatives for protecting public health.
<u>In respect of air pollution control and the associated public expenditure</u>		
(e)	<i>submit the legislative proposal to mandate all Ocean going vessels ("OGVs") to use cleaner fuel while at berth in Hong Kong waters to Legislative Council as soon as possible to ensure that the new requirement will be implemented from 1 January 2015.</i>	We are drafting the proposed regulation to mandate all OGVs to use cleaner fuel while at berth in Hong Kong waters with a view to implementing the regulation in 2015.
(f)	<i>accord a higher priority to pursuing with the Central People's Government and other relevant authorities the designation of an Emission Control Area ("ECA") within Pearl River Delta ("PRD") waters with a view to improving PRD regional air quality, and update the Panel on Environmental Affairs ("the Panel") on the progress made in due course.</i>	Given that OGVs at berth account for about 40% of their sulphur dioxide emissions in Hong Kong waters, we consider it imperative to mandate them switching to cleaner fuel when berthing here and to encourage other ports in PRD region to follow such a similar practice. Setting up an ECA is a relatively long-term collaboration goal.
(g)	<i>expedite the installation of onshore power ("OSP") facilities at Kai Tak Cruise Terminal ("KTCT") and 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 KTCT pending the commissioning of OSP facilities, so as to protect public health.</i>	For the OSP facilities at KTCT, a technical feasibility study is expected to complete by the end of 2014. Subject to the findings, the government will chart the way forward. The proposed regulation to mandate all OGVs to use cleaner fuel while at berth in Hong Kong waters will also apply to cruises berthed at KTCT and help reduce their emissions.
(h)	<i>proactively explore the installation of OSP facilities at other existing cruise terminals apart from KTCT, including the Ocean Terminal.</i>	We have encouraged the operator of the Ocean Terminal to consider providing OSP for cruise vessels and they are exploring the feasibility of doing so.

	<p align="center">Recommendations of the Subcommittee</p>	<p align="center">Response from the Administration</p>
(i)	<p><i>enhance the checking of vehicles under the mandatory vehicle examination scheme to ensure that the vehicles concerned would comply with the emissions standards applicable to them.</i></p>	<p>EPD will launch the strengthened emission control programme of petrol and liquefied petrol gas ("LPG") vehicles on 1 September 2014 by using roadside remote sensing equipment and dynamometer for emission testing. Meanwhile, the Transport Department ("TD") is working to upgrade the emission test in its vehicle roadworthiness examination to a dynamometer-based emission test.</p>
(j)	<p><i>enhance communication with District Councils ("DCs") and proactively solicit their support in rolling out transport-related environmental initiatives, such as bus route rationalization.</i></p>	<p>Since 2013, TD and franchised bus companies have pursued route rationalization with greater vigour by using a new approach, namely the Area Approach, in addition to the regular annual Route Development Programme ("RDP"). Under the Area Approach, an entire district, instead of individual routes, is used as the basis for reviewing and re-organizing bus services in a holistic manner to better serve the bus passengers.</p> <p>Area Approach proposals for North District and Tuen Mun have been implemented by phases since the second half of 2013 and their operation has generally been satisfactory. Through the Area Approach and other RDP proposals, a total of 15 low utilization bus routes were cancelled or amalgamated, and routing or service of about 100 routes was altered in 2013.</p> <p>In 2014, TD and franchised bus companies continue to adopt the Area Approach to pursue route rationalization proposals for Yuen Long/Tin Shui Wai, Tai Po, Tsing Yi and Sha Tin/Ma On Shan. Consultation with the concerned DCs is underway.</p>
(k)	<p><i>set up more low emissions zones ("LEZs") at busy corridors where only environment-friendly vehicles will be allowed to run, so as to alleviate the problem of roadside air pollution.</i></p>	<p>The Government will set up in late 2015 LEZs for franchised buses at busy corridors in Causeway Bay, Central and Mong Kok, which will restrict the access of franchised buses to these zones to low emission buses (i.e. those meeting the emission level of Euro IV or</p>

	Recommendations of the Subcommittee	Response from the Administration
		<p>above). Since these low emission buses are also serving districts outside the LEZs, roadside air quality in other districts will also benefit from it.</p> <p>Moreover, the Government has adopted an incentive-cum-regulatory approach to phase out progressively pre-Euro IV diesel commercial vehicles by end 2019. In effect, the whole territory will become LEZs by then.</p>
(l)	<p><i>expedite the study on the feasibility of switching various types of vehicles, including taxis, light buses and buses, to electric ones, with a view to promoting the use of electric vehicles ("EVs") on a wider scale to reduce vehicle emissions.</i></p>	<p>To promote the use of EVs, the Government has been offering first registration tax concession and subsidies via the Pilot Green Transport Fund. Efforts have also been made to set up public electric chargers. However, the daily operation of taxis, light buses and buses are still very challenging such that EVs fully suit the operational needs of these trades have yet to emerge. We will monitor closely the development of the EV technologies and the findings of local trials for commencing relevant feasibility studies on promoting their wider use when opportunities arise.</p>
(m)	<p><i>conduct more studies on the feasibility of using cleaner fuel, such as biodiesel, as energy with a view to promoting its wider use.</i></p>	<p>We completed in January 2013 a trial to ascertain the technical feasibility of powering local marine vessels with 0.05% sulphur diesel. Subsequently, we introduced in April 2014 a new regulation to cap the sulphur content of locally supplied marine diesel at 0.05%.</p> <p>As for biodiesel, we completed in 2003 a feasibility study on powering vehicles with biodiesel. The study had led to the introduction of a statutory specification for auto biodiesel to help establish drivers' confidence on this new type of fuel. We have also commissioned a consultancy study on the potential and implications of wider use of biodiesel. The findings will help</p>

	Recommendations of the Subcommittee	Response from the Administration
		formulate a comprehensive strategy for promoting the use of biodiesel.
(n)	<i>expedite the planning and provision of cycle tracks and ancillary facilities in new towns and new development areas to promote the use of bicycles as a means of transport, thereby promoting a low-carbon lifestyle.</i>	<p>Cycle tracks and associated facilities along the seafront at Tseung Kwan O Town Centre South were open for public enjoyment in November 2013.</p> <p>For the comprehensive cycling track network in the New Territories, the cycling tracks between Sheung Shui and Ma On Shan were open to public in March 2014. Construction works for Stage 1 of the cycle tracks between Tuen Mun and Sheung Shui commenced in November 2013 for completion by end 2016 and the Remaining Works is tentatively scheduled to commence by end of 2015 for completion in 2019.</p> <p>The Government will continue to identify potential cycling tracks in new development areas in the on-going studies.</p>
(o)	<i>take more actions to encourage the power companies to develop renewable energy ("RE").</i>	<p>The generation of certain forms of RE requires natural resources, such as solar, wind and hydro power. However, the physical environment of Hong Kong has imposed a lot of constraints on the wide application of such RE resources. Not only is it costly but its room for development is also limited. Generally speaking, electricity generation cost of RE is much higher than that of conventional electricity generation.</p> <p>To promote the development of RE, the Government has provided economic incentives to the power companies under the Scheme of Control Agreements in terms of a higher permitted rate of return for their investment in RE facilities, and a bonus in permitted return depending on the extent to which RE is used in electricity</p>

	Recommendations of the Subcommittee	Response from the Administration
		<p>generation.</p> <p>Hong Kong Electric Co Ltd ("HKE") has completed its largest photovoltaic installation at Lamma Power Station with an output capacity up to 1 000 kW. The solar power system has been connected to the power grid for providing electricity to HKE's customers.</p> <p>On the other hand, the largest renewable generation installation for CLP Power HK Ltd in Hong Kong has been commissioned on Town Island to supply electricity to the drug rehabilitation centre. It has a capacity of up to 192 kW.</p> <p>Our waste management facilities can also turn waste into RE. We have covered in the "Hong Kong: Blueprint for Sustainable Use of Resources 2013-2022" and "A Food Waste & Yard Waste Plan for Hong Kong 2014-2022" a number of waste-to-energy facilities including sludge treatment facility, integrated waste management facility, and a network of organic waste treatment facilities. The projects completed or under planning may make up about 1% of total electricity demand by the early 2020s.</p>
	<u>In respect of cost-benefit analysis of the measures to improve air quality</u>	
(p)	<i>conduct studies on the cost-effectiveness of the various new air quality improvement measures annually and report the findings to the Panel. The findings should also be published for information of the public.</i>	We have engaged the studies mentioned in our response to paragraph (a) above for developing a methodology to evaluate the benefits of individual air quality improvement initiatives.
	<u>In respect of air quality assessments under the environmental impact assessment mechanism</u>	
(q)	<i>given the serious health risks posed by toxic air pollutants ("TAPs"), consider making the testing of TAPs mandatory for</i>	Not all designated projects have a potential to emit TAPs. For designated projects that will have potential to emit TAPs and bring

	Recommendations of the Subcommittee	Response from the Administration
	<i>designated projects.</i>	about health risks concerns, EPD will specify the requirements for TAPs impact assessment in EIA studies.
(r)	<i>clearly specify the criteria for evaluating TAPs not established under the Air Pollution Control Ordinance (Cap. 311) ("APCO") as well as the criteria for evaluating "hazard to human life" under Annex 4 of Technical Memorandum on Environmental Impact Assessment Process ("the EIA-TM").</i>	For TAPs not established under APCO, EPD will adopt the established criteria set by the World Health Organization in evaluating the health risk impact.
(s)	<i>consider amending the Environmental Impact Assessment Ordinance (Cap. 399) ("EIAO") so that the EIA reports that are found not suitable for public inspection and the reasons for rejection will be made available on the EIAO website, so as to further enhance the transparency of the EIA process.</i>	If an EIA report fails to meet the EIA-TM or study brief requirements, it is already the current practice for EPD to post the decision and the reasons why the report is unacceptable on the EIAO website. Under such circumstances, EIAO does not require the project proponent to exhibit the concerned EIA report to consult the public. EPD will continue to enhance the transparency of the EIA process whilst avoiding giving misleading or incomplete information that might cause unnecessary public concerns.
(t)	<i>proactively engage green groups with relevant expertise in conducting EIA studies so as to enhance the credibility of the studies.</i>	EPD has been encouraging project proponents to proactively engage the green groups, general public and all interested parties and seek their views on environmental issues at the early planning and study stages. In addition, EPD would require project proponents to provide the Advisory Council on the Environment ("ACE") with information on the main concerns of the general public and interest groups made known during the EIA study and public inspection periods, and explain how these concerns are addressed in the EIA study, when ACE considers the EIA report.
(u)	<i>decide on the methodology for conducting the review of the Air Quality Objectives ("AQOs") expeditiously and report to the Panel on the progress made by the end of 2015.</i>	EPD is working on the approach and the methodology for reviewing the AQOs and will report progress to the Panel by the end of 2015.

	Recommendations of the Subcommittee	Response from the Administration
(v)	<i>in respect of the air quality impact assessment conducted on a designated project, put in place a mechanism whereby a testing of the air quality of the area affected by the project will be carried out after completion of the project to ensure that the mitigation measures as set out in the relevant EIA report have been properly implemented.</i>	The recommendation is in line with the current practice to put in place an Environmental Monitoring and Audit ("EM&A") programme during and after construction to monitor relevant environmental parameters if the EIA study identifies that the project will have potential to cause major impact and there is the need to monitor the effectiveness of mitigation measures and residual impacts. The EM&A programme requirements will be specified in the environmental permit for project proponents to implement.
	<u>Air quality modelling in Hong Kong</u>	
(w)	<i>take effective measures to enhance the transparency of Hong Kong's air quality modelling systems, including the data and assumptions used.</i>	The relevant data and assumptions have been put on EPD's website for public access.
(x)	<i>proactively engage the academic sector and other stakeholders in the further development of air quality modelling and the enhancement of Pollutants in the Atmosphere and their Transport over Hong Kong ("PATH"), including expeditiously setting up a working group comprising academics and experts in the field to review the air quality modelling systems in Hong Kong.</i>	A meeting with academics was held on 12 June 2014. The meeting also agreed that a working group would be set up to review the air quality modelling systems in Hong Kong by September 2014. EPD would aim to launch the new PATH for air quality assessment in January 2015.

Source: See Annex A to LC Paper No. [CB\(1\)1785/13-14\(05\)](#)

Progress of air quality improvement measures

List of relevant papers

Council/ Committee	Date of meeting	Paper
Panel on Environmental Affairs	--	<p>Referral from the Public Accounts Committee on the subject of "Implementation of air-quality improvement measures" (LC Paper No. CB(1)930/13-14(01))</p> <p>Referral from the Public Accounts Committee on the subjects of "Monitoring and reporting of air quality" and "Implementation of air-quality improvement measures" (LC Paper No. CB(1)553/14-15(01))</p>
Subcommittee on Issues Relating to Air, Noise and Light Pollution	*27 February 2014	Report of the Subcommittee on Issues Relating to Air, Noise and Light Pollution to the Panel on Environmental Affairs (LC Paper No. CB(1)1003/13-14(01))
Panel on Environmental Affairs	17 July 2014	<p>Administration's paper on "Administration's response to the Report of the Subcommittee on Issues Relating to Air, Noise and Light Pollution" (LC Paper No. CB(1)1785/13-14(05))</p> <p>Minutes of special meeting (LC Paper No. CB(1)179/14-15)</p>
Panel on Environmental Affairs	26 January 2015	Administration's paper on "2015 Policy Address - Policy initiatives of Environment Bureau: Environmental protection" (LC Paper No. CB(1)436/14-15(01))
Panel on Environmental Affairs	23 March 2015	Administration's paper on "2015-16 Budget-related initiatives of Environmental Protection" (LC Paper No. CB(1)652/14-15(03))

*Issuance Date

Hyperlink to relevant document:

Date of issuance	Government bureau/department	Document
28 March 2013	Environment Bureau in collaboration with Transport and Housing Bureau Food and Health Bureau Development Bureau	A Clean Air Plan for Hong Kong http://www.enb.gov.hk/sites/default/files/New_Air_Plan_en.pdf

Hyperlinks to relevant Council Questions:

Date	Council Question
17 July 2013	Council question raised by Dr Hon Kenneth CHAN http://www.info.gov.hk/gia/general/201307/17/P201307170344.htm
16 April 2014	Council question raised by Hon LEUNG Yiu-chung http://www.info.gov.hk/gia/general/201404/16/P201404160523.htm
11 June 2014	Council question raised by Hon CHAN Hak-kan http://www.info.gov.hk/gia/general/201406/11/P201406110401.htm
25 June 2014	Council question raised by Dr Hon KWOK Ka-ki http://www.info.gov.hk/gia/general/201406/25/P201406250402.htm
26 November 2014	Council question raised by Hon Dennis KWOK http://www.info.gov.hk/gia/general/201411/26/P201411260687.htm