# *立法會*
# *Legislative Council*

LC Paper No. CB(1)23/17-18
(These minutes have been seen by the Administration)

Ref : CB1/PL/EA

**Panel on Environmental Affairs**

**Minutes of meeting**
**held on Monday, 26 June 2017, at 2:30 pm**
**in Conference Room 3 of the Legislative Council Complex**

**Members present** **:** Hon Tanya CHAN (Chairman)
Dr Hon Junius HO Kwan-yiu, JP (Deputy Chairman)
Hon LEUNG Yiu-chung
Hon Tommy CHEUNG Yu-yan, GBS, JP
Hon WONG Ting-kwong, SBS, JP
Hon CHAN Hak-kan, BBS, JP
Dr Hon Priscilla LEUNG Mei-fun, SBS, JP
Hon Paul TSE Wai-chun, JP
Hon LEUNG Kwok-hung
Hon Steven HO Chun-yin, BBS
Hon Frankie YICK Chi-ming, JP
Hon WU Chi-wai, MH
Hon MA Fung-kwok, SBS, JP
Hon Charles Peter MOK, JP
Hon CHAN Chi-chuen
Hon LEUNG Che-cheung, BBS, MH, JP
Hon Kenneth LEUNG
Hon KWOK Wai-keung
Dr Hon Fernando CHEUNG Chiu-hung
Dr Hon Elizabeth QUAT, JP
Ir Dr Hon LO Wai-kwok, SBS, MH, JP
Hon Andrew WAN Siu-kin
Hon SHIU Ka-fai
Hon HUI Chi-fung
Hon KWONG Chun-yu

Hon Nathan LAW Kwun-chung
Dr Hon YIU Chung-yim

**Members absent** : Hon Jeffrey LAM Kin-fung, GBS, JP
Hon Dennis KWOK Wing-hang
Hon Martin LIAO Cheung-kong, SBS, JP
Hon CHU Hoi-dick
Hon HO Kai-ming
Hon Kenneth LAU Ip-keung, MH, JP

[According to the Judgment of the Court of First Instance of the High Court on 14 July 2017, LEUNG Kwok-hung, Nathan LAW Kwun-chung, YIU Chung-yim and LAU Siu-lai have been disqualified from assuming the office of a member of the Legislative Council, and have vacated the same since 12 October 2016, and are not entitled to act as a member of the Legislative Council.]

**Public Officers attending** : **For item IV**

Ms Christine LOH, JP
Acting Secretary for the Environment

Mr Vincent LIU, JP
Deputy Secretary for the Environment

Mr Francis CHENG
Assistant Director (Cross-Boundary and International)
Environmental Protection Department

Mr Alfred SIT, JP
Deputy Director/Regulatory Services
Electrical and Mechanical Services Department

Mr Norman HEUNG, JP
Deputy Director of Civil Engineering and Development
Civil Engineering and Development Department

Mr Edwin LAI
Assistant Director of the Hong Kong Observatory
(Development, Research and Administration)
Hong Kong Observatory

**For item V**

Ms Christine LOH, JP
Acting Secretary for the Environment

Mrs Alice CHEUNG, JP
Deputy Director of Environmental Protection (3)
Environmental Protection Department

Mr Dave HO
Acting Assistant Director (Air Policy)
Environmental Protection Department

Mr Brian LAU
Principal Environmental Protection Officer (Air Policy)
Environmental Protection Department

Mr Terence TSANG
Principal Environmental Protection Officer (Air Science)
Environmental Protection Department

**Clerk in attendance :** Ms Angel SHEK
Chief Council Secretary (1)1

**Staff in attendance :** Ms Anki NG
Senior Council Secretary (1)1

Miss Mandy POON
Legislative Assistant (1)1

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## I. Confirmation of minutes

(LC Paper No. CB(1)1122/16-17 — Minutes of the special meeting held on 3 March 2017)

The minutes of the special meeting held on 3 March 2017 were confirmed.

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## II. Information papers issued since last meeting

2. Members noted that the following papers had been issued since the last meeting:

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| (LC Paper No. CB(1)1009/16-17(01) | — | Letter dated 23 May 2017 from Hon HUI Chi-fung on the existing policies on bicycles and promoting bicycles as a mode of transport (Chinese version only)) |

## III. Items for discussion at the next meeting

| | | |
|---|---|---|
| (LC Paper No. CB(1)1164/16-17(01) | — | List of follow-up actions |
| LC Paper No. CB(1)1164/16-17(02) | — | List of outstanding items for discussion) |

3. Members agreed to discuss the following items at the next regular meeting scheduled for Monday, 17 July 2017, at 8:30 am:

(a) legislative proposal to mandate marine vessels to use compliant fuel within Hong Kong waters; and

(b) review of the Sixth Technical Memorandum for Allocation of Emission Allowances for Power Plants.

## IV. Hong Kong's Climate Action Plan 2030+

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|---|---|---|
| (LC Paper No. CB(1)1164/16-17(03) | — | Administration's paper on "Hong Kong's Climate Action Plan 2030+" |
| LC Paper No. CB(1)1164/16-17(04) | — | Updated background brief on "Combating climate change" prepared by the Legislative Council Secretariat |

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|---|---|---|
| LC Paper No. CB(1)1164/16-17(05) | — | Submission from Professor Benoit MAYER, The Chinese University of Hong Kong (English version only) |
| LC Paper No. CB(1)1164/16-17(06) | — | Submission from World Wide Fund For Nature Hong Kong) |
| LC Paper No. CB(1)1189/16-17(01) | — | Joint submission from World Wide Fund For Nature Hong Kong, Greenpeace East Asia, Friends of the Earth (HK), Clean Air Network, The Green Earth and 350HK) |

Briefing by the Administration

4. The Deputy Secretary for the Environment ("DSEN") said that the Government had released Hong Kong's Climate Action Plan 2030+ ("the Action Plan") in January 2017, setting out in detail the key measures on mitigation, adaptation and resilience to combat climate change. With the aid of a powerpoint presentation, he briefed members on the 2030 carbon reduction target for Hong Kong and other key measures as set out in the Action Plan, including the promotion of renewable energy ("RE"), energy efficiency and conservation, and other recent developments in combating climate change.

(*Post-meeting note*: A set of the powerpoint presentation materials was circulated to members vide LC Paper No. CB(1)1201/16-17(01) on 26 June 2017.)

Discussion

*Promotion of renewable energy*

*Feed-in tariff*

5. Noting that nearby cities such as Macau had set the Feed-in Tariff ("FiT") rate at $4/kWh, Mr Kenneth LEUNG and Dr Elizabeth QUAT enquired about the progress and the introductory rate of FiT in Hong Kong as introduced under the post-2018 Scheme of Control Agreements ("SCAs")

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signed between the Government and the two power companies on 25 April 2017, including the considerations involved in determining the rate, whether any study had been conducted for introducing the FiT scheme, targets to be achieved and the estimated timetable for introducing the scheme. Mr LEUNG also enquired about any additional cost for implementing FiT by the two power companies.

6. The Acting Secretary for the Environment ("Atg SEN") responded that the Administration would discuss with the two power companies on the introductory rate of FiT before the new SCAs came into effect. The rate would be set at an appropriate level to encourage the private sector and the community to consider investing in distributed RE as the power generated could be sold to the power companies at a rate higher than the normal electricity tariff rate to cover the cost of their investments.

7. DSEN supplemented that FiT payments would be charged to fuel costs and in setting the FiT rate(s), the Administration would take into account factors including the cost of investments in the distributed RE systems and those of generation, the attractiveness of the rate(s) in providing sufficient incentives to encourage the private sector and the community to consider investing in distributed RE, and the overall tariff impact. Incentive schemes would be introduced to encourage the power companies to develop RE and facilitate the development of distributed RE, and to facilitate grid connection for distributed RE systems. Detailed arrangements of the FiT scheme would be submitted to the Energy Advisory Committee in 2018 before the proposed details of the FiT scheme were announced. The scheme was expected to be introduced by early 2019. The estimated cost incurred by the two power companies for implementing the FiT scheme would be mainly the operating costs.

*Renewable energy and reduction of carbon emissions*

8. Mr HUI Chi-fung, Mr CHAN Hak-kan and Mr Nathan LAW expressed disappointment about the lack of RE target in Hong Kong by 2030. Mr HUI said that the Administration stated in the Action Plan that by 2030 the RE potential on the supply side was 3%-4%, which was far behind the targets of nearby cities such as Singapore and Taipei City. Mr CHAN enquired about the measures to be taken by the Administration to achieve the target set in the Action Plan to reduce carbon intensity by 65%-70% by 2030 compared with the 2005 level. Mr LAW opined that the Administration should provide a comprehensive plan and step up efforts for developing RE.

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9. Atg SEN responded that no RE target was set for 2030 as it was not quantifiable at the current stage. It was not easy to estimate as larger scale projects, such as floating photovoltaic ("PV") panels on reservoirs, needed to be tried out in Hong Kong. The Government was currently operating the largest solar farm in Hong Kong. The Administration had also been promoting RE development in government buildings, and would be introducing FiT to further promote RE in the community. The current estimate was that only about 1% to 1.5% of Hong Kong's total electricity need could be powered by solar energy by 2030. The Administration's aim was to apply RE on a wider and larger scale in the immediate years ahead based on mature and commercially available technologies with the public sector taking the lead, and to create the conditions to enable the private sector to consider adopting RE.

10. Atg SEN supplemented that as the power companies were installing new gas-fired generating units which were to be commissioned within the next few years, it was anticipated that the carbon intensity reduction target of 50%-60% for 2020 would be met. A number of other carbon emission reduction measures would also be introduced with a view to achieving the target.

11. Noting that air conditioning accounted for 30% of Hong Kong's electricity consumption on average and the District Cooling System ("DCS") in the Kai Tak development had an estimated annual reduction of carbon dioxide emission based on an estimated annual saving in electricity consumption, the Deputy Chairman enquired about the estimated annual saving in electricity consumption required for meeting the carbon intensity reduction target by 2030 with reference to the saving under the DCS in the Kai Tak development.

12. DSEN responded that as electricity generation accounted for around 70% of carbon emissions, the most effective vehicle for reducing carbon emission would continue to come from changing the fuel mix. Electricity generated from solar energy and DCS would only contribute to a small portion of the electricity generated by cleaner energy sources. To achieve the new target of reducing carbon intensity by 65%-70% by 2030, the power companies would adopt cleaner energy sources, including the installation of new gas-fired generating units to replace the majority of the coal-fired generation units which were due to retire.

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13. At the request of the Deputy Chairman, the Administration agreed to provide information in quantifiable terms on the estimated annual saving in electricity consumption required for meeting the carbon intensity reduction

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target of 65%-70% by 2030 with reference to the estimated annual saving in electricity consumption under the DCS in the Kai Tak development.

(*Post-meeting note*: The Administration's response was circulated to members vide LC Paper No. CB(1)1371/16-17(02) on 9 August 2017.)

14. Noting that the proportion of natural gas would be increased under the new fuel mix for power generation in 2020, Mr Nathan LAW enquired about the source of natural gas supply for Hong Kong. DSEN responded that currently Hong Kong had been purchasing natural gas from the Mainland and other countries in Asia and Australia. The power companies had been exploring the feasibility of constructing a floating storage and regasification unit for liquefied natural gas in Hong Kong waters, which would not only enable Hong Kong to have direct access to the international market for gas supplies at competitive prices and enhance the city's bargaining power for natural gas purchases, but also improve Hong Kong's energy security with diversified sources of natural gas.

15. Mr Nathan LAW expressed concern about the relatively high carbon emissions from vessels and aircrafts in Hong Kong under international standard. He enquired whether any target had been set for reducing carbon emissions from the maritime and aviation sectors in Hong Kong.

16. Atg SEN responded that for aviation, the International Civil Aviation Organization had decided in October 2016 to implement a Carbon Offset and Reduction Scheme for International Aviation as one of the measures to contribute to the carbon neutral growth from 2020 onwards. The scheme was expected to complement a broader package of measures to be implemented by the aviation sector including technological advancement on fuel efficient aircraft, improvement on operational procedures to reduce fuel consumption and promotion of the use of sustainable alternative fuels such as biofuels. At the request of Mr LAW, the Administration agreed to provide written response on the targets for reducing carbon emissions from the maritime and aviation sectors in Hong Kong.

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(*Post-meeting note*: The Administration's response was circulated to members vide LC Paper No. CB(1)1371/16-17(02) on 9 August 2017.)

*Installation of solar power generation equipment and systems*

17. Mr HUI Chi-fung, Dr Elizabeth QUAT and the Chairman enquired about the measures to be taken by the Administration to assist owners of residential and commercial buildings and village houses in installing

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equipment for converting solar energy into electricity. Mr HUI pointed out that the installation cost and the technology demand in solar power generation equipment/systems at buildings and village houses were high, and the Administration should implement supporting measures and step up promotion to assist the public in the installation work. Dr QUAT and the Chairman enquired about inter-departmental cooperative measures to streamline the procedures for installation of solar power equipment by the public, and other measures to promote the installation and use of solar power systems at residential and commercial buildings on a district basis for self-generation of power supply. The Chairman also enquired whether any study had been conducted on solar cell efficiency, for example, to determine the optimum angle of incidence of sun rays on the cells for maximum power generation.

18. Atg SEN responded that FiT would be one of the key supporting measures to promote the use of RE. In addition, with the development in smart/information technologies for enhancing energy efficiency, solar power would be more widely used as RE. The use of PV panels on reservoirs for power generation would be tried out to determine the areas required and costs involved. The Electrical and Mechanical Services Department ("EMSD") had also been conducting studies on the potential, barriers and constraints of installing PV systems on rooftops and facades of buildings.

19. DSEN explained that EMSD had put up a "Hong Kong RE net" webpage and issued guidelines to facilitate the public in installing solar power equipment. The Deputy Director (Regulatory Services) of the Electrical and Mechanical Services Department ("DD(RS)/EMSD") advised that EMSD had cooperated with other departments, including the Buildings Department, to issue relevant pamphlets which provided technical guidance on installation of solar PV panels by village houses and buildings. In addition, a list of installation contractors was also available on the webpage for public reference. Technical compliance with the installation guidelines was essential as non-compliance might affect the stability of the power supply from the power companies and the safety of the building structure. On solar power supply, the preliminary study currently being conducted by EMSD showed that an area of 1 square metre could generate about 120 kWh per year. Taking the average family power demand of around 5 000 kWh per year, the area required for each family to generate solar power per year would be around 40 square metres. In Hong Kong, the optimum angle of incidence for maximum solar energy generation was about 23 degrees.

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20. At the request of Dr Elizabeth QUAT, the Administration agreed to provide a written response on the plans and incentive measures to promote the installation and use of solar power systems at residential and commercial

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buildings, and details of the related study conducted by EMSD.

(*Post-meeting note*: The Administration's response was circulated to members vide LC Paper No. CB(1)1371/16-17(02) on 9 August 2017.)

21. Mr CHAN Hak-kan suggested the Administration consider introducing solar power generation equipment in restored landfills and on external building walls with the use of vertical thin film PV panels which provided large surface areas for capturing solar energy. The Chairman enquired about the efficiency of power generated by vertical thin film PV panels. DD(RS)/EMSD advised that amorphous cells were made by applying a thin film layer of active silicon on a solid substrate or flexible backing. The advantages of amorphous silicon cells included lower cost when compared to crystalline cells, and could be applied on flexible and light-weight substrate. However, the module efficiency of amorphous silicon modules was only in the range of 5% to 8%, which was low. For monocrystalline or polycrystalline cells, the cell efficiency was in the range of 13% to 18%. Low cell efficiency might prolong the payback period, and the efficiency of power generated by vertical thin film panels was relatively low.

22. In response to Mr Frankie YICK's enquiry about electricity generated by solar systems in reservoirs, DD(RS)/EMSD advised that a pilot project at Shek Pik Reservoir had been set up to explore the feasibility of developing floating PV panel system in local reservoirs and assess its effectiveness. A similar pilot project would be conducted at the Plover Cove Reservoir in late 2017. One of the objectives of the pilot projects was to assess whether the floating PV panels could help reduce evaporation and improve water quality.

*Reduction of transport emissions*

23. Noting in paragraph 20 of the Administration's paper (LC Paper No. CB(1)1164/16-17(03)) that the greenhouse gas ("GHG") emissions from transport made up about 16% of the total emissions in Hong Kong, and that the Government would continue to foster a green community by promoting cycling and walking to mitigate GHG emissions, Mr LEUNG Yiu-chung opined that the existing planning standards and supporting measures for fostering a green community, such as providing additional bicycle parking spaces in new development areas, were outdated. He considered that the planning requirements of each community should depend on individual community development, and suggested the Environment Bureau ("ENB") take the lead in implementing suitable measures to ensure that environmental protection plans would be given priority in community development, particularly in new development areas such as Kai Tak. Atg SEN responded

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that ENB had been coordinating efforts with the Planning Department of the Development Bureau and the Transport and Housing Bureau to implement measures for fostering a green community, and would continue with such efforts.

24. Mr Frankie YICK pointed out that the transport trade had been incurring additional costs for complying with the Administration's various requirements to reduce transport emissions. He urged the Administration to consult the transport trade on the operational and financial difficulties involved before implementing further emission control measures. The Administration took note of Mr YICK's suggestion.

Motion

25. The Chairman referred members to the following motion proposed by Mr HUI Chi-fung –

> "本會要求政府在落實上網電價前，就上網電價的設定、相關的研究報告、數據及計算方法等資料，向公眾及本會報告，及盡快制定相關政策的落實時間表。"
>
> (Translation)
>
> "This Panel requests the Government to report to the public and this Panel information on the determination of Feed-in Tariff, its relevant study reports, data and computational method before its introduction, and expeditiously devise an implementation timetable for relevant policies."

26. The Chairman decided that Mr HUI Chi-fung's proposed motion was directly related to the agenda item. Members had no objection against the Panel dealing with the motion. The Chairman put the motion to vote. Of the members present, 16 members voted for the motion, no member voted against and no member abstained. The Chairman declared that the motion was carried.

> (*Post-meeting note*: The wording of the motion passed at the meeting was issued to members vide LC Paper No. CB(1)1216/16-17(01) on 27 June 2017. The Administration's response to the motion was circulated to members vide LC Paper No. CB(1)1262/16-17(01) on 5 July 2017.)

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## V. Review of the Air Quality Objectives

(LC Paper No. CB(1)1164/16-17(07) — Administration's paper on "Progress of the Review of Air Quality Objectives"

LC Paper No. CB(1)1164/16-17(08) — Background brief on "Review of Air Quality Objectives" prepared by the Legislative Council Secretariat)

Briefing by the Administration

27. Atg SEN updated members on the latest progress of the Review of the Air Quality Objectives ("AQOs"). The Administration briefed members on the key tasks, approach and work plan of the AQOs Review at the Panel meeting on 30 March 2016, and undertook to report the review progress to the Panel by the end of the current term of the Government in June 2017. The Administration planned to complete the current AQOs Review in the first quarter of 2018, report the findings and recommendations to the Advisory Council on the Environment and the Panel in mid-2018, and launch a full-scale public consultation on the recommendations of the AQOs Review.

Discussion

*Reducing emissions of air pollutants*

28. Referring to Annex A of the Administration's paper (LC Paper No. CB(1)1164/16-17(07)) which showed the number of exceedances allowed under the current AQOs and the World Health Organization ("WHO")'s Air Quality Guidelines ("AQGs") relating to seven key air pollutants, Mr Kenneth LEUNG expressed concern that the current AQO for sulphur dioxide ("$SO_2$") was only pegged at the WHO interim target-1 ("IT-1") level. He enquired whether the Administration had identified the major sources of $SO_2$ emissions in Hong Kong and the progress of implementing various measures for mitigating their $SO_2$ emissions, and the scope for further tightening the AQO for $SO_2$ to WHO IT-2 or even the AQG.

29. Atg SEN responded that marine emissions and power generation by coal-fired power plants were the major sources of $SO_2$ emissions in Hong Kong. Since July 2015, ocean-going vessels ("OGVs") had been required to switch to low sulphur fuel while berthing in Hong Kong, which had greatly helped reduce the $SO_2$ emissions from OGVs at berth. In addition, the

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Mainland would also introduce control measures requiring vessels to use low sulphur content fuel in the Pearl River Delta ("PRD") region waters by January 2019. The measures would help further improve air quality in the region. The AQOs Review Working Group ("the Working Group") would continue the remaining tasks for the Review, including looking into whether there would be any possible scope for tightening the AQOs. The Administration would solicit views from the general public on possible new measures to improve air quality in the later part of 2017, and aimed at completing the Review in the first quarter of 2018.

30. The Deputy Director of Environmental Protection (3) ("DDEP(3)") supplemented that in 2015, the $SO_2$ emissions from vessels and power generation accounted for 59% and 37% of the total $SO_2$ emissions in Hong Kong respectively. She added that the Administration was working on a new proposal to control marine emissions and also a review on the emission caps for power plants, and would consult the Panel on these initiatives in due course.

31. Referring to Annex B of the Administration's paper which showed a table on the deliberations of possible measures regarding the proposed new air quality improvement measures on road transportation by the Road Transportation Sub-group under the Working Group, Mr Frankie YICK considered that the Administration should further explore the feasibility of tram or electric bus interchange schemes at busy road sections to replace franchised bus services, and make more efforts to pursue bus routes rationalization. He also urged the Administration to step up enforcement actions against modifications of vehicles, and to consider setting up effective priority road network for public vehicles including buses, mini-buses and taxis. The relevant measures were referred to in items D1, F5, H1 and H5 of Annex B of the Administration's paper.

32. Mr Frankie YICK also pointed out that as detailed in item A4 of Annex C of the Administration's paper regarding the possible control measures on marine transportations, the control measure of mandating OGVs to use marine fuel with sulphur content at 0.1% at berth had to be implemented on a regional basis, i.e. in all the ports in the PRD region, to avoid jeopardizing the competitiveness of the Hong Kong port, as the use of fuels with lower sulphur content would have impact on the operation costs of OGVs.

33. Referring to items C and E of Annex B of the Administration's paper regarding fostering a pedestrian-friendly and bicycle-friendly environment and utilization of intelligent transport systems, the Chairman noted the difficulties in promoting and implementing such measures as they straddled

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across the scope of work of different Bureaux and Departments ("B/Ds"). She enquired whether there was inter-departmental collaboration in implementing such measures. Atg SEN advised that the Working Group comprised representatives from the relevant B/Ds, including the Development Bureau, the Transport and Housing Bureau and the Department of Health, which had participated in the deliberations on the practicability to implement the air quality improvement measures and other tasks in the Review. For example, representatives from the Department of Health who had taken part in WHO international conferences on air quality and public health would assist ENB in the assessment of health impact arising from air pollution, which was one of the major tasks of the Review.

34. Mr HUI Chi-fung expressed concern that the current AQOs for fine suspended particulates were only set at WHO IT-1 levels. Mr HUI enquired whether the Administration would consider adopting IT-2 for this pollutant with a view to meeting the ultimate targets of WHO AQGs as soon as practicable. He also urged the Administration to consider promoting and implementing measures which would attract public participation, such as the use of electric vehicles and bicycles as modes of transport.

35. Atg SEN responded that the Administration would consider whether to tighten the current AQOs after conducting the current AQOs Review. She added that the various emission control measures taken by the Administration had resulted in significant improvement in air quality, which was evident from available air quality measurement results.

*Promoting electric vehicles and franchised buses*

36. Noting the reduced concession for the First Registration Tax ("FRT") for electric private cars announced in the 2017-2018 Budget, Dr Elizabeth QUAT enquired whether the Administration would take further actions to promote the use of electric vehicles and expand the charging facilities for electric vehicles, and whether it had any plan to impose control over highly polluting vehicles. She also enquired about the target and timetable for phasing out conventional commercial vehicles by electric ones. Mr HUI Chi-fung urged the Administration to consider offering incentives to encourage phasing out of conventional private cars by electric ones, so as to improve air quality while containing the vehicle fleet. Mr Kenneth LEUNG enquired about the progress of the Government's trial of electric franchised buses, the detailed technical analysis of the trial scheme and the practical difficulties encountered.

37. DDEP(3) responded that the reduced FRT concession only applied to electric private cars, not electric commercial vehicles. Such policy was

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implemented taking into account the trend of vehicle manufacturers producing mass market electric private cars with lower prices and driving performance comparable with petrol cars, and also the standing policy of encouraging commuters to use public transport instead of private cars. Since commercial vehicles were the major source of roadside air pollution, the Administration would continue to promote the use of electric commercial vehicles and encourage the commercial sectors to test out green innovative transport technologies through the Pilot Green Transport Fund ("PGTF"). The results of the trials conducted under PGTF so far showed that there was a potential for a wider use of electric light goods vehicles in Hong Kong while the performance of other types of electric commercial vehicles still could not fully take up commercial vehicle duties due to various constraints. The Administration had not set a specific target and timetable for phasing out conventional commercial vehicles by electric ones. It would continue to encourage vehicle suppliers to introduce electric vehicles with charging requirements suiting the local operation of commercial vehicles. A consultancy study was being conducted on the charging facilities for electric private cars. Atg SEN further advised that the Administration was aware of the need to contain the growth of private car fleet and was looking into measures to achieve such purpose.

38. Acting Assistant Director (Air Policy) of the Environmental Protection Department ("Atg AD(AP)/EPD") supplemented that the Administration fully subsidized the franchised bus companies to acquire 36 single-deck electric buses for trial to test out their performance, reliability as well as economic feasibility in local conditions. At the moment, 12 buses had come into operation, with five battery-electric buses started operation at the end of 2015, two supercapacitor buses started operation in March 2017 and five more battery-electric buses commenced operation in June 2017. Compared with public buses in other cities, local franchised buses were more intensively used. They generally operated with high frequencies, long service hours, high peak passenger loadings, on hilly terrains, and in hot and humid weather requiring heavy air-conditioning duties. These stringent operational conditions had put electric buses to a very severe test. Since the launch of the trials, there were incidents such as malfunction of bus doors, broken wheel bolts, and excessive regenerative braking torque affecting the braking performance of electric buses in rainy weather. For the two supercapacitor buses, some charging problems were identified. The remaining buses would commence operation progressively in 2017.

*Monitoring air quality*

39. Mr LEUNG Yiu-chung expressed concern about air pollution caused by roadside air pollutants and power generation. He opined that although the

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use of electric vehicles could reduce the emission of roadside air pollutants, at the same time it would increase the use of electricity generated from power plants. Mr LEUNG enquired about the measures to be taken by the Administration to improve roadside air quality, including measures for controlling the growth of the number of vehicles, and also efforts to expand the air quality monitoring network and collect data on roadside air pollutants for public reference.

40. Atg SEN responded that the Administration considered that the rapid growth of private car fleet would have adverse impact on the air quality, and the Administration was looking into various measures to control private car growth. The Administration would continue to step up efforts in improving air quality, and the successful implementation of any measures would need the consensus and support of the community and the Legislative Council. Atg AD(AP)/EPD supplemented that EPD had been operating a comprehensive air quality monitoring network comprising general and roadside air quality monitoring stations and had been reporting real-time air quality information to the public using data collected from the network.

41. Mr KWONG Chun-yu enquired whether the Administration would consider the relationship between air quality and public health in conducting the Review of the AQOs. Atg SEN responded that in March 2013, ENB released "A Clean Air Plan for Hong Kong" to outline comprehensively the challenges Hong Kong was facing with regard to air quality and to give an overview of the relevant air quality improvement policies and measures, including making reference to public health. In addition, the Air Science and Health Sub-group under the Working Group would assess the air quality improvements as well as the health and economic impacts arising from potential emission control measures and evaluate the possible scope for further tightening the AQOs.

*Implementing air quality objectives for public works projects*

42. Mr Nathan LAW enquired about the determination of whether the current AQOs which took effect from 1 January 2014 were applicable for conducting the air quality impact assessment of a public works project under the Environmental Impact Assessment Ordinance (Cap. 499) ("EIAO"), including whether the EIAO requirements based on the current AQOs might apply to certain ongoing public works projects for which environmental impact assessments ("EIAs") or environmental permits ("EPs") had been conducted/issued before the AQOs took effect.

43. Atg SEN responded that in general, under EIAO, approval of EIA reports and issue of EPs for designated projects had to make reference to the

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prevailing AQOs at the time the decision was made by the Director of Environmental Protection. Atg SEN agreed to provide a more detailed written response on Mr LAW's enquiry.

(*Post-meeting note*: The Administration's response was circulated to members vide LC Paper No. CB(1)1373/16-17(02) on 15 August 2017.)

*Utilizing intelligent transport systems*

44. Referring to item E3 of Annex B of the Administration's paper regarding implementation of the Electronic Road Pricing ("ERP") Pilot Scheme, Mr Nathan LAW enquired about the timetable for completing the feasibility study on the ERP Scheme and the implementation of the scheme. Atg AD(AP)/EPD responded that the Road Transportation Sub-group under the Working Group noted that although the scheme was intended to be a long-term measure, the Government would start to conduct an in-depth feasibility study to formulate detailed options for the next stage of public discussion on the scheme. Atg SEN agreed to provide information regarding the timetable for conducting the feasibility study.

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(*Post-meeting note*: The Administration's response was circulated to members vide LC Paper No. CB(1)1373/16-17(02) on 15 August 2017.)

## VI. Any other business

45. There being no other business, the meeting ended at 4:20 pm.

Council Business Division 1
Legislative Council Secretariat
11 October 2017