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Panel on Environmental Affairs

Minutes of special meeting
held on Thursday, 17 July 2014, at 2:30 pm
in Conference Room 3 of the Legislative Council Complex

Members present	**:**	Hon Cyd HO Sau-lan, JP (Chairman) Hon LEE Cheuk-yan Hon Vincent FANG Kang, SBS, JP Hon WONG Ting-kwong, SBS, JP Hon CHAN Kin-por, BBS, JP Hon Albert CHAN Wai-yip Hon Claudia MO Hon Frankie YICK Chi-ming Hon WU Chi-wai, MH Hon Gary FAN Kwok-wai Hon Charles Peter MOK, JP Dr Hon Kenneth CHAN Ka-lok Hon Dennis KWOK Dr Hon Helena WONG Pik-wan Ir Dr Hon LO Wai-kwok, BBS, MH, JP Hon Christopher CHUNG Shu-kun, BBS, MH, JP Hon Tony TSE Wai-chuen, BBS
Members absent	**:**	Hon CHAN Hak-kan, JP (Deputy Chairman) Hon James TO Kun-sun Hon Steven HO Chun-yin Hon CHAN Han-pan, JP Hon Kenneth LEUNG Dr Hon Elizabeth QUAT, JP

Public Officers attending	**:**	**For item I** Ms Christine LOH, JP Under Secretary for the Environment Mr Vincent LIU, JP Deputy Secretary for the Environment Mrs Dorothy MA Principal Assistant Secretary for the Environment (Energy) Mr CHAN Fan, JP Director of Electrical and Mechanical Services Electrical and Mechanical Services Department Mr Harry LAI Assistant Director / Electricity and Energy Efficiency Electrical and Mechanical Services Department Mr CHEUNG Yuen-fong Chief Engineer / Energy Efficiency B Electrical and Mechanical Services Department **For item II** Ms Christine LOH, JP 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 Science) Environmental Protection Department Mr WONG Chuen-fai Principal Environmental Protection Officer (Cross-Boundary & International) Environmental Protection Department

For item III

Ms Christine LOH, JP
Under Secretary for the Environment

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

Mr Ken WONG
Principal Environmental Protection Officer
(Metro Assessment)
Environmental Protection Department

Mr Maurice YEUNG
Principal Environmental Protection Officer
(Assessment and Noise)
Environmental Protection Department

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

Clerk in attendance : Ms Miranda HON
Chief Council Secretary (1)1

Staff in attendance : Miss Lilian MOK
Senior Council Secretary (1)1

Ms Mandy LI
Council Secretary (1)1

Miss Mandy POON
Legislative Assistant (1)1

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I. Collection of charges for District Cooling System at the Kai Tak Development

(LC Paper No. CB(1)1785/13-14(01) — Administration's paper on "Collection of charges for District Cooling System at the Kai Tak Development"

LC Paper No. CB(1)1785/13-14(02) — Updated background brief on "Provision of a District Cooling System at the Kai Tak Development" prepared by the Legislative Council Secretariat)

The Under Secretary for the Environment ("USEN") briefed members on the Administration's legislative proposals to provide the necessary legal backing for the collection of charges for the use of the services provided by the District Cooling System ("DCS") at the Kai Tak Development ("KTD") and other related matters. With the aid of a power-point presentation, the Assistant Director of Electrical and Mechanical Services/Electricity and Energy Efficiency ("AD/EE") introduced the operation of and charging arrangements for DCS.

(Post-meeting note: A set of the power-point presentation materials was circulated to members vide LC Paper No. CB(1)1826/13-14(01) on 17 July 2014.)

Charging arrangements for DCS

2. Mr LEE Cheuk-yan noted that the Administration intended to recover both the capital and operating costs of DCS in 30 years and enquired whether the Administration would consider raising the DCS tariff to a higher level with a view to shortening the time required for full cost recovery. He also sought elaboration on the charging arrangements for DCS.

3. AD/EE advised that the project life of DCS was estimated to be about 30 years. Hence, the Administration intended to recover the capital and operating costs of DCS over its service life such that the DCS tariff could be set at a competitive level comparable to the cost of individual water-cooled air-conditioning systems ("WACS") using cooling towers (which was one of the most cost-effective air-conditioning systems ("ACSs") available in the international market). Based on a rough estimate, the DCS tariff of an office building at KTD with a total gross floor area of about 60 000 square metres

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("m^2") would be about \$20/m^2 (i.e. around \$2 per square feet). Apart from the DCS tariff, individual DCS users of a building subscribing to district cooling services had to share the costs of ACS of the building to acquire the chilled water for cooling purpose, averaging at about \$1 per square feet. As compared with the costs of conventional ACSs ranging from \$3 to \$5 per square feet, the cost of DCS (including both the DCS tariff and the costs of the ACSs installed in individual user buildings) was relatively lower. In response to Mr WONG Ting-kwong's question, AD/EE responded that the daily operating hours of the office building quoted in the above example were 10 hours from 8 a.m. to 6 p.m.

4. Mr LEE Cheuk-yan further expressed concern that the building owners/building management offices might set the air-conditioning charges of their buildings well above the DCS tariff collected by the Administration. The Director of Electrical and Mechanical Services ("DEMS") advised that the Administration had consulted various stakeholders, including professional bodies, developer associations and business chambers, on the DCS tariff charging mechanism and relevant arrangements. The parties consulted welcomed the implementation of DCS at KTD and did not raise any objection to the proposed charging mechanism. To enhance DCS users' understanding of how the DCS tariff would be calculated and to facilitate their discussion with building owners/building management offices about the air-conditioning charges of their buildings, the components of the DCS charges and the relevant charging arrangements would be made transparent to all DCS users. It was expected that building owners/building management offices could reach a consensus with occupants/tenants on the air-conditioning charges.

5. Mr WONG Ting-kwong considered the charging arrangements for DCS acceptable and he expected that stakeholders would find the level of the DCS tariff and the costs of the ACSs of buildings subscribing to district cooling services reasonable. He further asked whether the DCS tariff would be adjusted on a seasonal basis, e.g. a lower rate for winter and a higher rate for summer. AD/EE responded that since the charging mechanism of DCS was designed towards achieving a simple charging regime with common charge rates for all DCS users regardless of their load profiles, the DCS tariff would not be adjusted on a seasonal basis.

6. Noting that the capacity charge to be paid by a DCS user would be levied according to the contract cooling capacity (i.e. an estimation of the maximum designed cooling capacity for the building) as agreed between the DCS user and DEMS before the provision of district cooling services, Mr Frankie YICK asked if objective criteria were in place for estimating the contract cooling capacity of a user building in order to discourage an owner from deliberately under-estimating the contract cooling capacity of his building. He also considered that

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the financial penalties for unpaid DCS charges were too lenient to achieve sufficient deterrent effect.

7. DEMS responded that the contract cooling capacity of a user building would be assessed by professionals and had to be agreed by both the building owner and DEMS before the provision of district cooling services. Under these circumstances, it was unlikely that the contract cooling capacity of a user building would be over-estimated or under-estimated. As regards the surcharges for unpaid charges, DEMS advised that a surcharge equal to 5% of the unpaid amount would be charged after the payment due date. If the amount remained unpaid for six months after the payment due date, the further surcharge would be 10% of the total billed and unpaid amount.

8. Given that the capacity charge rate would be adjusted annually based on the Composite Consumer Price Index and the consumption charge rate would also be adjusted annually to take into account the change in electricity tariff rate, Mr WU Chi-wai doubted the need to conduct a tariff review at least once every five years. DEMS explained that as the actual cost and revenue of DCS might deviate from the forecast, the Administration considered it more appropriate to conduct a tariff review regularly to ensure that the DCS tariff would be calculated on a fair and equitable basis. If the review outcome indicated that the discrepancy between the actual cost and revenue and the forecast was significant and would have a permanent impact on the cost and revenue of DCS, the capacity charge rate would be adjusted in the light of the review outcome.

9. Ir Dr LO Wai-kwok enquired whether the Administration would offer DCS tariff concessions to schools subscribing to district cooling services in KTD. AD/EE responded that district cooling services would be provided to two primary schools in KTD in July 2015. The Education Bureau was discussing the detailed tariff concessionary arrangements with the schools. DEMS clarified that no additional expenditure should be incurred by the primary schools for the use of district cooling services. Although the charging arrangements for DCS and conventional ACSs might be different, the DCS tariff would be set at a competitive level comparable to the cost of individual WACS using cooling towers.

10. In response to Ir Dr LO Wai-kwok's further enquiry as to whether the Administration would offer discounts on the DCS tariff to users who reduced their cooling demand and consumed less electricity, AD/EE reiterated that professionals would be engaged in estimating the contract cooling capacity of a user building in order to arrive at reasonably accurate estimations and the contract cooling capacity of the building would require mutual agreement of the building owner and DEMS. There would also be a mechanism in place for setting and revising the contract cooling capacity, based on which the capacity

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charge to be paid would be determined.

Mandatory use of DCS

11. Mr WONG Ting-kwong enquired whether it was mandatory for all buildings in KTD to subscribe to district cooling services. AD/EE replied that while DCS would provide services to all public and private non-domestic developments in KTD, domestic buildings could install conventional ACSs for cooling purpose. To maximize the environmental benefits of DCS, the Administration would impose a requirement for all private non-domestic projects to construct and maintain DCS substation to connect to DCS and prescribe such requirement in the conditions of land sale. Given such a requirement and the competitive level of DCS tariff, there should not be economic incentive for private non-domestic building owners to install separate chiller plants and associated electrical equipment in their buildings rather than using DCS as this would involve extra costs and take up space.

12. Mr Frankie YICK expressed concern as to whether DCS in KTD could achieve cost-effectiveness as the use of DCS by private non-domestic developments in the district was not mandatory. If the subscription rate of DCS was low, the Administration might not be able to achieve full cost recovery within the project life of DCS and the cost of running DCS would be shouldered by a few DCS users. He opined that the Administration should mandate the use of DCS by private non-domestic developments at KTD by stipulating the requirement in the land sale conditions. Mr WU Chi-wai shared Mr YICK's views.

13. DEMS reiterated that private non-domestic developments would be required by the conditions of land sale to be connected to DCS. The Administration had made a comparison between the costs of DCS and the costs under WACS per unit of cooling energy. With the target rate of return at 4.94% in real terms, the unit cost of DCS was lower than the unit cost of an individual WACS, which was in line with the expectation that long-term energy savings would translate into a reduction in cooling costs. Apart from energy saving, DCS also had other benefits, such as saving plant room space in individual buildings, reducing the total building cost by about 5-10%, enabling more flexible building designs and eliminating the noise and water dripping problems arising from the use of conventional ACSs. In view of the above benefits to individual users, the Administration anticipated that building owners in KTD would not have incentive to pursue alternative ACSs.

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Operation of DCS

14. Mr WONG Ting-kwong opined that it might be too optimistic for the Administration to assume that DCS would have a project life of 30 years and set the payback period at 30 years, taking depreciation into account. From his experience, the life of a large-scale WACS would be 10 years at most. AD/EE responded that with proper maintenance and repair, the life of the large-scale electrical and mechanical facilities to be used in DCS could be up to 30 years. As district cooling had been commonly used in foreign countries, the Administration had made reference to overseas experience when working out the project life of DCS.

15. Mr Frankie YICK expressed concern about the stability of the underground pipe network of DCS. DEMS advised that DCS provided chilled water to user buildings through a closed loop pipe network which allowed the circulation of water to user buildings in clockwise or anti-clockwise direction. Besides, each pipe trench of DCS would allow the laying of three chilled water pipes at the same level. In case of power failure, the Administration would deploy temporary mobile power generators to provide chilled water to user buildings for cooling purpose. As such, DCS would be a stable and reliable ACS. In response to Mr YICK's further enquiry about the works progress of DCS, AD/EE advised that the entire DCS project would be conducted in phases and about one-tenth of the electrical and mechanical infrastructure had been completed so far.

16. Mr WU Chi-wai enquired whether DCS could provide both cooling and heating services. DEMS said that DCS users could install heating devices in the ACSs of their buildings to provide heating in winter time.

17. While agreeing to the need to reduce energy demand and minimize the emission of greenhouse gases, Ms Claudia MO expressed concern that DCS users might not proactively reduce energy use in air-conditioning as DCS would be a centralized cooling system, and the capacity charge would be shared amongst different DCS users in the building concerned. AD/EE explained that the DCS tariff comprised the capacity charge and the consumption charge. While the capacity charge would be levied according to the contract cooling capacity of a user building, the consumption charge would vary with the actual consumption of DCS by occupiers/tenants of that building. Meters would also be installed in user buildings to measure and record the chilled water capacity and consumption information.

18. Ms Claudia MO further asked if the Administration planned to implement DCS in other new development areas. AD/EE advised that DCS was a very large-scale centralized ACS. It might consist of one or more chiller plants to

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produce chilled water and a closed loop network of underground pipes for distributing the water to buildings within its service area for air-conditioning purpose. As such, the implementation of DCS would depend on a multitude of factors which included engineering considerations, site constraints and infrastructure provisions. DEMS said that the operation of DCS would require a large consumption of fresh water and sea water and hence, the system would be most suitable for buildings near the sea front. Some new districts such as the West Kowloon Cultural District and the Liantang/Heung Yuen Wai Boundary Control Point might offer an opportunity for implementing DCS. USEN acknowledged that DCS might be implemented in new districts under planning should the necessary environmental and engineering requirements be met. However, the Administration did not have plans to develop DCS in any new development area at this stage.

19. Noting that there would be an off-setting arrangement for the Electrical and Mechanical Services Department ("EMSD") to make use of the DCS charges and fees received to settle the operation and maintenance fees for the DCS operator as well as utility costs for operating the DCS plants, Ir Dr LO Wai-kwok expressed concern that the repair and maintenance cost of DCS might be exorbitant, thus posing heavy financial burden on the Administration. An estimate on the maintenance cost of DCS should therefore be made. AD/EE advised that DCS would be developed and operated under a "Design, Build and Operate" contract which included not only the building and engineering works but also the necessary maintenance to support the smooth operation of the entire DCS.

20. Since DEMS might suspend or terminate the provision of district cooling services to a user building in case of non-payment of charges or failure to comply with the improvement notices issued by DEMS, the Chairman expressed concern that the occupiers/tenants of the building might be seriously affected. DEMS advised that under certain circumstances, for example, when there was water leakage in some parts of a pipe connecting to a user building, the Administration might temporarily suspend or terminate the provision of district cooling services to the building until the problem was fixed. The Administration would not suspend or terminate the provision of district cooling services to a user building arbitrarily.

Legal backing for the collection of DCS tariff

21. Mr Albert CHAN said that he was supportive of constructing a DCS at KTD to promote energy efficiency and conservation. However, he doubted the need for legislation to provide for the collection of charges for using the services provided by DCS. He was of the view that the charging arrangements for DCS could be prescribed in appropriate provisions in the conditions of land

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sale. DEMS advised that the Administration had sought legal advice from the Department of Justice which had indicated that there should be clear and explicit statutory authority for the Administration to impose a charge or a fee. Section 3(1) of the Public Finance Ordinance (Cap. 2) also provided that any charges received for the purposes of the Government would form part of the general revenue unless there were express statutory provisions to provide for alternative arrangements. To empower EMSD to make use of the DCS tariff to settle payment to the DCS operator as well as the utility costs arising from the operation of DCS, the Administration would need to introduce relevant statutory provisions to provide for this offsetting arrangement. As such, the Administration would set out in the District Cooling Services Bill that non-government buildings using district cooling services at KTD would be subject to the charging regime stipulated in the Bill.

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22. Mr Albert CHAN requested the Administration to further set out the rationale for enacting relevant legislation for the collection of charges for using the services provided by DCS at KTD.

(*Post-meeting note*: The Administration's response was circulated to members on 6 August 2014 vide LC Paper No. CB(1)1903/13-14(01).)

II. Collaboration with Guangdong in improving air quality in the Pearl River Delta region

(LC Paper No. CB(1)1785/13-14(03) — Administration's paper on "Collaboration with Guangdong in improving air quality in the Pearl River Delta region"

LC Paper No. CB(1)1785/13-14(04) — Updated background brief on "Collaboration with Guangdong in improving air quality in the Pearl River Delta region" prepared by the Legislative Council Secretariat)

23. USEN briefed members on the joint efforts between the Governments of Hong Kong Special Administrative Region ("HKSAR") and Guangdong Province in tackling air pollution problems in the Pearl River Delta ("PRD") region by highlighting the salient points of the discussion paper.

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Support for Hong Kong-owned factories in the PRD region

24. Ir Dr LO Wai-kwok said that the regional air pollution problem could not be resolved by the HKSAR Government alone since the air quality of Hong Kong was affected by both local and regional emissions. He sought information on whether Hong Kong-owned factories in the PRD region had encountered difficulties in complying with the emission reduction measures and tightened emission reduction targets adopted by the Mainland authorities, such as the Ten Air Pollution Prevention and Control Measures promulgated by the State Council ("the 10 measures"), and how the HKSAR Government would assist them.

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(*Post-meeting note*: The Administration's response was circulated to members on 1 September 2014 vide LC Paper No. CB(1)1959/13-14(01).)

25. The Deputy Director of Environmental Protection (3) ("DDEP(3)") responded that the Mainland had been stepping up its efforts against air pollution. As mentioned in Annex A to the discussion paper, the 10 key measures to combat air pollution as announced by the State Council in September 2013 included vigorously promoting cleaner production and strictly controlling the expansion of production capacity of high energy consumption and high polluting industries, etc. Since April 2008, Hong Kong had been implementing the Cleaner Production Partnership Programme ("CPPP") in collaboration with the Guangdong Province to encourage and assist Hong Kong-owned factories to adopt cleaner production technologies and practices, thereby contributing to improving the regional air quality. Cleaner production practices typically involved improving maintenance practices, upgrading or introducing new technologies, or changing production processes, which resulted in meeting consumers' needs with more environmentally friendly products and services. In addition to reducing pollution, CPPP also generated tangible economic savings for a business enterprise by improving the overall efficiency of production, which was an incentive for encouraging Hong Kong-owned factories to engage in the programme. He further advised that as at the end of May 2014, a total of 204 demonstration projects on cleaner production technologies had been conducted and the emission reduction results were encouraging.

Control of emission from ocean-going vessels ("OGVs")

26. Dr Helena WONG enquired when the Administration would submit the legislative proposal to mandate all OGVs to use cleaner fuel while at berth in Hong Kong waters to the Legislative Council ("LegCo"). USEN responded that the relevant legislative proposal would be submitted to LegCo in the next session with a view to implementing the requirement in 2015.

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27. Mr Frankie YICK said that while the industry was supportive of the proposed requirement for all OGVs to switch to cleaner fuel while at berth in Hong Kong waters in 2015, it requested that the mandatory practice should also be applied to all OGVs while berthing in the PRD waters so as to maintain a level playing field. USEN responded that the Environmental Protection Department ("EPD") had been proactively exploring with the Guangdong authorities the feasibility of mandating OGVs to switch to cleaner fuel when berthing in the PRD waters. Moreover, EPD had been closely liaising with the industry on this front. At the meeting held at the end of May 2014, the industry was satisfied with the progress made by EPD so far.

Air Quality Objectives ("AQOs")

28. Dr Helena WONG expressed concern on cross-boundary air pollution and asked whether similar AQOs had been adopted by the Governments of HKSAR and Guangdong Province. She also asked about the major differences between the relevant policies of the two places in terms of environmental protection and air pollution control.

29. While acknowledging that there were differences in the environmental policies of the two places such as AQOs and vehicle emission standards, USEN advised that Guangdong would continue to align itself with the best practices in the world to control emissions from its power, transport and industrial sectors. She drew members' attention to Annexes B and C to the Administration's paper which set out the key emission reduction measures of the Shenzhen and Guangdong authorities in line with the State Council's policy. The Principal Environmental Protection Officer (Air Science) ("PEPO(AS)") supplemented that AQOs of Hong Kong and the Mainland were similar as they were both benchmarked against a combination of interim and ultimate targets under the World Health Organization ("WHO")'s Air Quality Guidelines and were broadly comparable to the air quality standards adopted by the European Union and the United States. Compared with the Mainland, Hong Kong had adopted a more stringent standard for respirable suspended particulates ("PM10") as prescribed under the WHO Interim Targets-2, i.e. the daily and annual PM10 standards were 100 micrograms per cubic metre ("$\mu g/m^3$") and $50\mu g/m^3$ respectively. The Mainland had adopted the standard prescribed by the WHO Interim Targets-1 under which the daily and annual PM10 standards were $150\mu g/m^3$ and $70\mu g/m^3$ respectively.

Regulatory regime for cross-boundary vehicles

30. Dr Helena WONG expressed concern on the arrangement for regulating cross-boundary vehicles after the commissioning of the Hong Kong-Zhuhai-

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Macao Bridge. She enquired whether the vehicles from the Mainland or Macao would be allowed to enter the Hong Kong road system directly or would be required to park in the vicinity of land boundary control points and use feeder transport services to travel to the urban areas, and how those visiting vehicles which did not meet Hong Kong's vehicle emission standards would be dealt with. Expressing similar views, Mr Dennis KWOK enquired how the Administration would regulate cross-boundary vehicles to ensure that drivers travelling between the two places would comply with the relevant legislation, in particular the fuel use and engine requirements of Hong Kong.

31. DDEP(3) responded that the Transport Department ("TD") would plan for the transport facilities and services to tie in with the commissioning of new land boundary control points. He further advised that all Mainland drivers and vehicles should comply with local traffic ordinances and regulations while driving in Hong Kong. Besides, all vehicles were required to comply with the prevailing statutory emission standards when they were first registered in Hong Kong. The current statutory emission standards were set at Euro V level, meaning that all Mainland vehicles were also required to meet Euro V standards when they were granted the cross-boundary vehicle licences. TD would continue to ensure that Mainland vehicles coming to Hong Kong would meet the statutory vehicle emission standards.

32. DDEP(3) further said that in the latter half of the year, Shenzhen would be amongst the first batch of Mainland cities to introduce National V motor petrol fuel and progressively implement National V emission standards for petrol and diesel vehicles. In response to Mr Dennis KWOK's enquiry, DDEP(3) advised that National VI and V emission standards were comparable to Euro VI and V levels respectively.

Enhancement of the Air Quality Monitoring Network ("the Network")

33. Mr Frankie YICK enquired about the latest progress of the Network, and suggested that the Administration should provide updated information on pollutant concentrations and statistics more frequently for reference by the public in future. DDEP(3) responded that EPD had been collaborating with Guangdong and Macao to further enhance the Network which comprised 16 ambient monitoring stations in the region. The proposals included setting up additional monitoring stations, adding new monitoring parameters, and reviewing the overall calculation and reporting of monitoring results such as regional air quality index. The environmental authorities of the three sides would continue to monitor regional air quality and were going to release the latest monitoring results to the public on a three-monthly basis.

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34. DDEP(3) further said that since the operation of the Network in 2006, the annual concentration levels of sulphur dioxide, nitrogen dioxide and PM10 in the region had decreased by 62%, 13% and 15% respectively by 2013. However, the Network recorded an increase of 13% in the ozone level in the same period, reflecting that the situation of photochemical smog pollution in the region had to be improved. The Guangdong and HKSAR Governments would continue to implement emission reduction measures to further improve the air quality in the region and tackle the photochemical pollution problem.

35. Mr Albert CHAN pointed out that according to some media reports, some studies on air pollution in the PRD region had been barred from full disclosure to the public. He was concerned that pollution data about the Mainland would be regarded as confidential and not allowed to be published. USEN explained that the studies were commissioned by EPD in 2007 to study the formation of photochemical smog or ozone pollution, and industrial sources of air pollution in the PRD region, both of which had an impact on Hong Kong. At that time, the HKSAR Government had agreed with the Guangdong authority that the study reports would not be released without the latter's consent.

36. DDEP(3) supplemented that since the above studies involved information on the emission of volatile organic compounds by individual factories in Guangdong Province, the Guangdong authority considered it inappropriate to disclose such information. In the circumstances, EPD had published a summary version of the study reports for public reference. DDEP(3) also stressed that EPD was committed to maintaining the transparency of the air quality data in the PRD region. Of the 16 ambient monitoring stations set up under the Network, 13 were in the PRD region while the other three were in Hong Kong. The air monitoring data recorded by the Hong Kong stations were published real time on EPD's website and available to the public, and the Network released regional air quality index to the public every day.

37. Mr Albert CHAN opined that while it was not necessary to publish the name of individual factories, the study results as a whole should be published as the results would shed light on major industrial pollution sources in the PRD region and affect Hong Kong. He urged the Administration to make public other reports on pollution in future. The Chairman shared Mr CHAN's views.

Co-operation in air pollution forecasting

38. Dr Kenneth CHAN referred to the Hedley Environmental Index, which monitored and published in real time on the internet the economic cost of air pollution in terms of public health impacts in Hong Kong, and enquired whether the Mainland had conducted any similar study on the impact of air pollution on

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public health. USEN responded that in general Mainland officials had become more concerned about air pollution and its impact on the well-being of the community. By way of illustration, she said that the Mainland authorities considered that the Air Quality Health Index ("AQHI") adopted in Hong Kong was useful in providing information to the public and had many discussions with EPD on the AQHI system. This was a positive first step for more studies on the impact of air pollution on public health in the Mainland.

39. Noting that the environmental authorities of Guangdong and Hong Kong had agreed in December 2013 in principle to explore the co-operation in air pollution forecasting, Dr Kenneth CHAN asked about the scope of the forecast. PEPO(AS) advised that the two places would step up the exchange of information on the concentration of air pollutants and air pollution forecasts with a view to alerting members of the public before the onset of serious air pollution incidents. Dr Kenneth CHAN urged the Administration to actively consider formulating norms for air monitoring indexes such as AQHI and the Hedley Environmental Index, and encourage the exchange of relevant information among various groups in the community. Besides, consideration should be given to covering air pollution caused by nuclear plants under the forecasting system.

Guidelines on the protection of outdoor workers

40. Noting from the Administration's paper that one of the key requirements of the 10 measures was incorporating heavy pollution weather into the ad hoc contingency management plan of the local government, the Chairman questioned whether any guidelines had been provided by the HKSAR Government for outdoor workers to work on days with poor air quality, particularly on hot and humid days during the summer months. She further asked if the Administration would put in place contingency measures to alleviate the level of pollution during heavily polluted weather, such as temporarily suspending the operation of incinerators.

41. DDEP(3) responded that AQHI launched on 30 December 2013 provided more timely and useful air pollution information to the public. AQHIs were reported on a scale of 1 to 10 and 10+ and were grouped into five health risk categories, namely, low, moderate, high, very high, and serious. Different health advices would be given to people with different degrees of susceptibility to air pollution when AQHI reached high or above categories. As regards the contingency measures to be taken, he said that following the heavy sandstorm which affected Hong Kong a few years ago, guidelines had been formulated by an inter-departmental group to help relevant government departments advise vulnerable groups under their purview to take the necessary precautionary measures if AQHI was high or above. The contingency measures to be taken

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included spraying haul roads with water to reduce generation of fugitive dust. Briefings on AQHI had also been arranged for employers' associations which were required to ensure the safety and health of their employees at work. Given the vast range of outdoor work and the differences in their nature, it would be more appropriate for employers and employees themselves to decide on the relevant precautionary measures to be taken on days with poor air quality, taking into account their nature of outdoor work.

42. The Chairman considered that there was a need to amend the labour laws for the protection of the health of outdoor workers on days with poor air quality. The Labour Department should draw up guidelines on the protection of outdoor workers during days of poor AQHI for employers to follow. The Administration should also include new terms in government works contracts to stipulate requirements for the protection of outdoor workers who were engaged in government infrastructure projects. As the subject of protection of the occupational health of outdoor workers was under the purview of the Panel on Manpower, the Chairman directed the Clerk to refer the issue to the Panel on Manpower for discussion.

Clerk

(*Post-meeting note*: The subject matter was referred to the Panel on Manpower on 20 October 2014.)

III. 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) — Administration's paper on "Administration's response to the Report of the Subcommittee on Issues Relating to Air, Noise and Light Pollution"

Relevant paper

LC Paper No. CB(1)1003/13-14(01) Report of the Subcommittee on Issues Relating to Air, Noise and Light Pollution)

43. USEN invited members to note the progress of the Administration in taking forward the recommendations of the Subcommittee on Issues Relating to Air, Noise and Light Pollution as set out in the annexes of the Administration's paper.

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Environmental Impact Assessment ("EIA")

44. Noting that public health assessment was not required for designated projects specified in the Environmental Impact Assessment Ordinance (Cap. 499) ("the EIAO") and it was up to individual project proponents to decide whether or not to conduct public health assessments to examine the possible risks that their projects might pose on public health, Mr Dennis KWOK 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.

45. USEN responded that as people had become more aware of public health issues, some project proponents had proactively conducted public health assessments on their designated projects in recent years. For example, the Airport Authority Hong Kong had carried out public health assessments in the EIA study for the Three-Runway System project to address public health concerns. The Administration 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.

Air quality modelling in Hong Kong

46. Mr Dennis KWOK was pleased to note that the Administration had arranged a meeting with the academics in June 2014 to discuss air quality modelling and a working group would be set up to review the air quality modelling systems in Hong Kong (e.g. "Pollutants in the Atmosphere and their Transport over Hong Kong" ("PATH")) by September 2014. To enhance the transparency of Hong Kong's air quality modelling systems, Mr KWOK opined that the data or assumptions used in the PATH model should be made available to the public. USEN advised that EPD aimed to launch the new PATH for air quality assessment in January 2015. Further deliberations on the application of the new PATH model could be arranged at a later stage. The Chairman requested the Administration to brief the Panel on the application of the new PATH model for air quality assessment in Hong Kong in the next LegCo session.

Interface between air pollution and public health

47. Noting that the Administration had commissioned local experts and academics in early 2014 to conduct three studies to look into the interface between air pollution and public health, Dr Kenneth CHAN opined that the

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Administration should encourage the widest possible public participation and cross-boundary co-operation throughout the study process. The Administration should also co-ordinate efforts of relevant Government bureaux and departments ("B/Ds") in taking forward different environmental and pollution control initiatives for protecting public health.

48. USEN advised that due to increasing public awareness of the possible association of adverse health effects with different kinds of pollution, relevant B/Ds had been jointly formulating initiatives to address various environmental problems to safeguard public health. The Administration had been engaging local experts and academics to undertake research studies to facilitate the formulation of environmental policies and initiatives. On the international front, the Administration had maintained a regular dialogue with WHO on different health issues to identify the knowledge gaps and how best they could be filled. After EPD had launched AQHI in 2013 to provide the public with information on the health risk of air pollution, the Administration planned to work with the health industry on the application of AQHI to help the public to take precautionary measures to protect their health.

Light pollution

49. Dr Kenneth CHAN enquired whether the Administration would introduce legislation to regulate external lighting in Hong Kong and if it would, the progress made so far. The Principal Assistant Secretary for the Environment (Energy) replied that the Task Force on External Lighting ("the Task Force") had reviewed different research studies on external lighting and would seek advice from the Department of Health when necessary. To further solicit public views on the regulation of external lighting in Hong Kong, the Task Force conducted a public engagement exercise in the second half of 2013. Since there were diverse views on the issue, the Task Force would carefully consider the views received during the public engagement exercise and make recommendations on the way forward for the Administration's consideration.

50. Dr Helena WONG expressed grave concern about the nuisance caused to nearby residents and road users by reflected glare from glass curtain walls of buildings and advertisement signboards with flashy lights. Given that Hong Kong was a densely populated city with highly mixed development, the problem of external lighting had been affecting the daily life of the public. She strongly urged the Administration to regulate excessive external lighting. USEN responded that the Administration was mindful of the need to carefully work out the definition of light nuisance if statutory control on external lighting was to be introduced and would take into account the recommendations to be made by the Task Force when mapping out the way forward.

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51. Mr Vincent FANG opined that as Hong Kong was a cosmopolitan city and the Pearl of the Orient, advertisement lighting was vital to local business. If external lighting installations were required to be switched off before the midnight, the tourist industry, retail business and catering industry would be significantly affected. Mr FANG pointed out that the business sector, in general, was willing to co-operate upon receipt of complaints about excessive external lighting. The Administration should therefore strike a proper balance between the operational needs of the business sector and the need to minimize the adverse impact of external lighting on the public.

Use of electric vehicles ("EVs")

52. Mr CHAN Kin-por sought elaboration on how the Administration would enhance the charging network for EVs with a view to promoting the use of EVs on a wider scale to reduce vehicle emissions. Mr Tony TSE also opined that as the number of EVs in Hong Kong would continue to increase, the Administration should step up its efforts to assist property management companies and car park operators in the installation of charging points at their car parks so as to meet the increasing demand for EV charging services.

53. DDEP(3) acknowledged that an extensive network of charging facilities was critical to promoting the wider use of EVs. At present, there were about 1 000 standard EV charging points in Hong Kong, covering all 18 districts in various types of buildings. In addition, there were over 100 medium charging points and 10 quick chargers set up at various districts, meaning that there was one quick charger within around 20 kilometers. As about 600 EVs were in use, the Administration considered the existing charging network adequate.

54. DDEP(3) further advised that the Administration had been encouraging property developers, property management companies and car park operators to set up charging facilities. Since the installation of charging facilities might involve technical issues, EMSD had established a hotline to provide the necessary assistance and technical support to relevant stakeholders and individual EV owners to install EV chargers. Besides, the Administration had been offering waiver of first registration tax for EVs till end March 2017. The Development Bureau ("DevB") also announced in October 2010 that concessions on gross floor areas would be granted to car parks which were "EV charging-enabling" with an aim to foster a sustainable built environment.

55. In response to Mr Tony TSE's further enquiry as to whether the Administration would consider promoting the use of green public transport (e.g. trams), USEN advised that to improve air quality on all fronts, co-operation and co-ordination of relevant B/Ds including the Environment Bureau ("ENB"), the Transport and Housing Bureau ("THB") and DevB was essential.

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Cross-bureaux discussions were now underway. The Chairman remarked that ENB should continue to work closely with THB and DevB to formulate traffic management solutions to improve roadside air quality.

IV. Any other business

56. There being no other business, the meeting ended at 4:33 pm.

Council Business Division 1
Legislative Council Secretariat
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