

**立法會**  
**Legislative Council**

LC Paper No. CB(1)251/19-20  
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by the Administration)

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**Panel on Environmental Affairs**

**Minutes of policy briefing-cum-meeting  
held on Monday, 28 October 2019, at 2:00 pm  
in Conference Room 3 of the Legislative Council Complex**

**Members present** : Dr Hon Junius HO Kwan-yiu, JP (Chairman)  
Hon Steven HO Chun-yin, BBS (Deputy Chairman)  
Hon CHAN Hak-kan, BBS, JP  
Hon CHAN Kin-por, GBS, JP  
Dr Hon Priscilla LEUNG Mei-fun, SBS, JP  
Hon Mrs Regina IP LAU Suk-yea, GBS, JP  
Hon Frankie YICK Chi-ming, SBS, JP  
Hon WU Chi-wai, MH  
Hon CHAN Chi-chuen  
Hon CHAN Han-pan, BBS, JP  
Hon Kenneth LEUNG  
Hon KWOK Wai-keung, JP  
Hon Dennis KWOK Wing-hang  
Hon Elizabeth QUAT, BBS, JP  
Hon Martin LIAO Cheung-kong, GBS, JP  
Ir Dr Hon LO Wai-kwok, SBS, MH, JP  
Hon SHIU Ka-fai, JP  
Hon YUNG Hoi-yan, JP  
Hon Tanya CHAN  
Hon HUI Chi-fung  
Hon Kenneth LAU Ip-keung, BBS, MH, JP  
Hon Tony TSE Wai-chuen, BBS  
Hon CHAN Hoi-yan

**Members attending** : Hon Starry LEE Wai-king, SBS, JP  
Hon Wilson OR Chong-shing, MH

**Member absent** : Hon CHU Hoi-dick

**Public Officers attending** : **For item III**

Mr WONG Kam-sing, GBS, JP  
Secretary for the Environment

Mr TSE Chin-wan, BBS, JP  
Under Secretary for the Environment

Ms Maisie CHENG, JP  
Permanent Secretary for the Environment/Director of  
Environmental Protection

Ms Irene YOUNG, JP  
Deputy Secretary for the Environment

Mr Elvis AU, JP  
Deputy Director of Environmental Protection (1)  
Environmental Protection Department

Mrs Vicki KWOK, JP  
Deputy Director of Environmental Protection (2)  
Environmental Protection Department

Mr Owin FUNG  
Deputy Director of Environmental Protection (3)  
Environmental Protection Department

Mr Bruno LUK  
Deputy Director of Environmental Protection (Special  
Tasks)  
Environmental Protection Department

**For item IV**

Mr TSE Chin-wan, BBS, JP  
Under Secretary for the Environment

Mr Owin FUNG  
Deputy Director of Environmental Protection (3)  
Environmental Protection Department

Mr Dave HO, JP  
Assistant Director of Environmental Protection (Air  
Policy)  
Environmental Protection Department

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

Ms Queenie LEE  
Principal Assistant Secretary for the Environment  
(Electricity Research)  
Environment Bureau

Mr Andy HO  
Chief Electrical and Mechanical Engineer (Electricity  
Team)  
Environment Bureau

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

**Staff in attendance :** Mr Jason KONG  
Senior Council Secretary (1)1

Miss Bowie LAM  
Council Secretary (1)1

Miss Mandy POON  
Legislative Assistant (1)1

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**I. Information papers issued since the meeting on 27 May 2019**

Members noted that the following papers had been issued since the meeting on 27 May 2019:

(LC Paper Nos. CB(1)1232/18-19(01) and (02) — Letter dated 6 June 2019 from Hon Elizabeth QUAT proposing measures to support local waste paper recyclers (Chinese version only) and the Administration's written response

LC Paper No. CB(1)1301/18-19(01) — Information paper on "Cleaner Production Partnership Programme Progress Report for 2018-19" provided by the Administration

LC Paper No. CB(1)1373/18-19(01) — Referral arising from the meeting between Legislative Council Members and Wan Chai District Council members on 28 June 2019 regarding the regulation of external lighting installations (Restricted to Members)

LC Paper No. CB(1)1374/18-19(01) — Referral arising from the meeting between Legislative Council Members and Yuen Long District Council members on 31 May 2019 regarding the replacement of ageing sewers in Yuen Long district (Chinese version only) (Restricted to Members))

**II. Items for discussion at the next meeting**

(LC Paper No. CB(1)31/19-20(01) — List of follow-up actions

LC Paper No. CB(1)31/19-20(02) — List of outstanding items for discussion)

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2. Members agreed to discuss the following items at the next regular meeting scheduled for Monday, 25 November 2019, at 2:30 pm:

- (a) holistic fisheries management strategy in marine parks; and
- (b) provision of sewerage network in North District.

**III. Briefing by the Secretary for the Environment on the Chief Executive's 2019 Policy Address**

(LC Paper No. CB(1)31/19-20(03) — Administration's paper on "2019 Policy Address — Policy initiatives of Environment Bureau: Environmental protection"

LC Paper No. CB(1)50/19-20(01) — Submission from Electric Vehicle Policy Study Group (Chinese version only))

Relevant papers

The Chief Executive's 2019 Policy Address (*issued on 16 October 2019*)

The Chief Executive's 2019 Policy Address Supplement (*issued on 16 October 2019*)

Briefing by the Administration

3. With the aid of a PowerPoint presentation, the Secretary for the Environment ("SEN"), Deputy Director of Environmental Protection (3) ("DDEP(3)"), Deputy Director of Environmental Protection (Special Tasks) ("DDEP(ST)"), Deputy Director of Environmental Protection (2) ("DDEP(2)"), Deputy Secretary for the Environment and Deputy Director of Environmental Protection (1) ("DDEP(1)") took turns to brief members on the key environmental initiatives in the Chief Executive's 2019 Policy Address ("2019 Policy Address") and its Supplement ("2019 Policy Address Supplement").

(*Post-meeting note: The PowerPoint presentation materials were circulated to members on 28 October 2019, vide LC Paper No. CB(1)71/19-20(01).*)

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(*Post-meeting note:* A submission from a deputation tabled at the meeting was issued to members on 28 October 2019, vide LC Paper No. CB(1)78/19-20(01).)

Discussion

Air quality

*Promoting the use of electric vehicles and other new energy vehicles*

4. Ms Elizabeth QUAT said that she was supportive of the Administration's plan to launch a \$2 billion pilot scheme to subsidize the installation of electric vehicle ("EV") charging-enabling infrastructure in car parks of existing private residential buildings. However, she was concerned that it remained a challenge for the owners' corporations of the buildings concerned to reach a consensus on carrying out the required modification works; and the permissible plot ratios of certain buildings might have been fully utilized already, rendering it impossible to carry out the works unless the plot ratios were relaxed. She asked whether the Environment Bureau ("ENB")/Environmental Protection Department ("EPD") had assigned dedicated staff to handle tasks relating to EV charging facilities.

5. Ms YUNG Hoi-yan noted that according to the Administration's preliminary assessment, about 60 000 parking spaces in existing private residential buildings would be provided with EV charging-enabling infrastructure in about three years under the said pilot subsidy scheme. She queried whether the \$2 billion funding would be sufficient, as the average subsidy for each parking space would be about \$33,000 only, and the building owners concerned might still need to pay significant sums for the modification works. She sought elaboration on the major target recipients of the subsidies and called on the Administration to comprehensively consult the owners' corporations of all buildings concerned. In addition, she asked whether the Administration had considered, for more efficient use of public resources, subsidizing the installation of EV charging-enabling infrastructure in car parks of shopping centres where the EV chargers could be used for longer durations by multiple users each day.

6. The Chairman asked whether the subsidies under the pilot subsidy scheme would be offered on a first come, first served basis.

7. SEN and DDEP(3) responded that:

- (a) the objective of the \$2 billion pilot subsidy scheme was to assist building owners in resolving the technical and financial problems

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often encountered in installing EV charging-enabling infrastructure in car parks of private residential buildings, such as the challenge of reaching a consensus among building owners on the sharing of the costs involved. Therefore, the scheme would be targeted at car parks of existing private residential buildings as well as commercial/residential composite buildings, which generally had scattered ownership;

- (b) as car parks of shopping centres generally had concentrated ownership, they would not be covered by the scheme. Moreover, in line with the practices of other advanced cities, EV owners in Hong Kong were encouraged to charge their EVs at off-peak hours (i.e. night time) to make use of the relatively low demand for electricity during those hours;
- (c) the scheme would not directly subsidize the installation of EV charging facilities at individual parking spaces. Nevertheless, the provision of EV charging-enabling infrastructure in a car park would facilitate the onward installation of EV chargers at individual parking spaces by their owners should the need arise;
- (d) EV charging-enabling infrastructure, such as transformer rooms, in car parks of both new and existing buildings could be disregarded from gross floor area ("GFA") calculation. Therefore, full utilization of the permissible plot ratio of an existing private residential building would not be an obstacle to the relevant installation works;
- (e) the Administration had started consulting relevant stakeholders on the details of the scheme, and expected to finalize the proposal in the coming few months; and
- (f) ENB/EPD had assigned dedicated staff to handle work relating to the promotion of new energy vehicles ("NEVs"), including EVs.

8. Given that commercial vehicles ("CVs") accounted for the majority of vehicular emissions in Hong Kong, Mr Tony TSE asked about the justifications for introducing the aforesaid pilot subsidy scheme, which would mainly facilitate the adoption of electric private cars ("e-PCs") but not electric CVs ("e-CVs"). He and the Chairman asked whether there were/would be other incentive schemes for reducing emissions from CVs. To ensure more effective use of public resources, Mr TSE opined that the Administration should proactively encourage owners of car parks with EV charging-enabling infrastructure to install charging facilities at individual parking spaces. In

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addition, he asked about the target and timetable for upgrading EV chargers installed at parking spaces available for public use inside government car parks.

9. Ms Elizabeth QUAT urged that the Administration should enhance the network of public charging facilities for EVs, and install quick EV chargers for public use in government premises.

10. SEN responded that:

- (a) the Administration had been implementing a host of measures to reduce emissions from CVs, such as the incentive-cum-regulatory programme to phase out pre-Euro IV diesel CVs ("DCVs") ("the pre-Euro IV programme") and the Pilot Green Transport Fund;
- (b) as the replacement of conventional private cars ("PCs") by NEVs had become a global trend, the number of e-PCs in Hong Kong was expected to increase progressively in the next decade or so. To prepare for this transformation, there was a need to upgrade the infrastructure of some existing private residential buildings to make them EV charging-enabling (i.e. there would be sufficient electricity supply for simultaneous charging of a large number of EVs, and electricity supply would be available at each parking space), so that EV owners could install chargers at their parking spaces in those buildings in future. The said pilot subsidy scheme aimed at facilitating such upgrades;
- (c) with the GFA concession mechanism in place, over 80% of private parking spaces in newly approved developments had been equipped with EV charging-enabling infrastructure. As different EV models would require different chargers, it would be more appropriate for EV owners to install chargers at their individual parking spaces based on their actual needs, rather than requiring developers to provide chargers at all parking spaces in advance; and
- (d) all standard chargers open for public use inside government car parks had been upgraded to medium chargers. As announced in the 2019-2020 Budget, funds would be allocated for the installation of 1 200 additional medium chargers for public use in government car parks. Moreover, the Administration's relevant internal guideline specified that new government buildings should have not less than 30% of parking spaces provided with EV charging facilities.



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11. Mr CHAN Hak-kan commended the Administration's stepped-up efforts in the past year in promoting the use of EVs. While ENB had explained that the statement "the Government's longer term target is that as far as PCs are concerned, 30% are EVs or hybrid by 2020" in the Hong Kong Planning Standards and Guidelines merely represented a "vision", he sought clarification on whether clear targets had been set in respect of the replacement of fossil fuel-powered conventional vehicles by NEVs. In addition, he suggested that the Panel should invite public views on the policies and measures in respect of promoting the use of EVs.

12. Ms Elizabeth QUAT opined that the Administration's policies on promoting the use of EVs were ambiguous. She suggested that a higher first registration tax ("FRT") concession be offered for e-PCs, so that prospective buyers would have a stronger incentive to choose e-PCs instead of conventional PCs.

13. Mr HUI Chi-fung considered that the Administration should set a clear target for the take-up rate of NEVs (including EVs), and remarked that the Democratic Party advocated the phasing out of conventional PCs powered by fossil fuels, so that by 2030 all newly registered PCs would be NEVs. He also commented that the current FRT concession offered for e-PCs was not sufficient for mainstreaming e-PCs, given that the choices of mass-market e-PC models were still limited in the market.

14. SEN responded that currently about 1.8% of PCs in Hong Kong were EVs and about 5% were NEVs (including EVs), and such penetration rates ranked second and first respectively in Asia. The pace of popularization of NEVs in Hong Kong depended largely on the supply of NEVs meeting local needs by overseas car manufacturers. With the recent introduction of more mass-market e-PC models, of which the FRTs could be fully waived under the "One-for-One Replacement" Scheme, the average daily number of newly registered e-PCs had increased significantly from one/two in 2018 to about five in the first three quarters of 2019. Through the public engagement on Long-term Decarbonisation Strategy ("LTDS") being conducted by the Council for Sustainable Development ("SDC"), the Administration was soliciting public views on whether conventional vehicles powered by fossil fuels should be banned in Hong Kong in future.

15. Mr CHAN Hak-kan sought elaboration on why SDC was involved in the setting of the long-term target for phasing out conventional vehicles. SEN explained that under the established practice, public engagement exercises were organized for matters of wide public concern, as they could facilitate the solicitation of public views through a bottom-up approach. After the completion of the public engagement on LTDS, SDC would put forward

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recommendations for the Administration's consideration.

*Trial scheme on electric public light bus*

16. Mr Frankie YICK expressed support for the proposed introduction of a trial scheme on electric public light bus ("e-PLB"). He and Ir Dr LO Wai-kwok said that the public light bus ("PLB") trade generally welcomed the proposal. Ir Dr LO enquired how the Administration would resolve the potential difficulties in setting up charging facilities for e-PLBs in public places.

17. DDEP(3) responded that the Administration had engaged Hong Kong Productivity Council as a consultant to formulate the basic technical requirements and specifications of e-PLBs and associated charging facilities. The Administration's preliminary assessment was that PLBs running on fixed routes (i.e. green minibuses) had a higher potential to switch to e-PLBs. The Administration would explore the feasibility of installing charging facilities at the green minibus termini.

18. Mr Frankie YICK pointed out that the increase in the maximum seating capacity of PLBs in recent years and the Administration's plan to phase out Euro IV DCVs had already put many PLB operators under heavy financial pressure to replace or upgrade their vehicles, and it was difficult for them to obtain loans for such purposes. He therefore urged that the Administration should carefully set the timing for launching the trial scheme on e-PLB to avoid adding more financial pressure on PLB operators. DDEP(3) responded that it was not the Administration's intention to require replacement of all existing PLBs with e-PLBs in one go. In this connection, the Administration would implement a trial programme first to test the feasibility for liquefied petroleum gas ("LPG")/diesel PLBs to switch to e-PLBs.

*Phasing out of Euro IV diesel commercial vehicles*

19. Mr SHIU Ka-fai enquired about the timetable for launching the incentive-cum-regulatory programme to phase out Euro IV DCVs ("the Euro IV programme") and sought clarification on the expiry date of the pre-Euro IV programme. DDEP(3) advised that the Administration would launch a public consultation on the Euro IV programme in the coming few weeks, and the pre-Euro IV programme would expire on 31 December 2019. As it would take some time for the Administration to complete the public consultation process, Mr SHIU expressed grave concern that some vehicle repair workshops would lose a major income source after the expiry of the pre-Euro IV programme, which might lead to business closure. He questioned why the Administration did not plan to launch the Euro IV programme earlier to ensure a seamless transition. DDEP(3) explained that one of the major issues to be considered

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during the preparation for the Euro IV programme was the levels of ex-gratia payments to be provided to affected vehicle owners. The Administration considered it more prudent to consult stakeholders on the payment levels close to the end of the pre-Euro IV programme to avoid unnecessary comparison of the ex-gratia payments in the two programmes.

*Pilot scheme on new energy ferries*

20. Dr Priscilla LEUNG asked about the scope of the pilot scheme on new energy ferries (including whether routes opened or re-opened in future would be covered), and the estimated amount of subsidy to be offered to ferry operators for the procurement of new energy ferries.

21. SEN and DDEP(3) advised that the pilot scheme would be implemented jointly by ENB and the Transport and Housing Bureau ("THB"), which would be responsible for in-harbour routes and outlying island routes respectively. At present, there were seven in-harbour routes run by four operators. ENB was discussing with the operators with a view to identifying suitable electric ferry models. Additional in-harbour routes opened or re-opened in future, if any, would also be covered by the pilot scheme. As the sizes and costs of electric ferries to be procured had yet to be determined, the Administration considered it premature at this stage to estimate the level of subsidy to be offered to ferry operators.

*Tightening of sulphur content of marine light diesel*

22. Mr Frankie YICK noted that the Administration would explore tightening the maximum sulphur content of locally supplied marine light diesel from 0.05% to 0.001%. He enquired whether diesel with sulphur content of not more than 0.001% was already commonly used in land transport, and how the Administration would minimize the impact of tightening the fuel standard on the operating costs of the relevant trades. In addition, he called on ENB/EPD to coordinate with THB/the Transport Department closely should it decide to tighten the fuel standard.

23. DDEP(3) responded that currently, marine light diesel with 0.001% sulphur content was available in the market, but it was not widely used and was more expensive than marine light diesel with 0.05% sulphur content. The Administration would monitor the market situation and continue to consult relevant stakeholders on the proposed tightening of fuel standard.

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Waste management

*Waste plastics*

24. Members noted that the Administration currently planned to introduce only voluntary measures to reduce the use of plastic packaging materials and single-use plastic items as well as phase out products containing microbeads. Ms Elizabeth QUAT expressed doubts about the effectiveness of voluntary measures in influencing producers/suppliers' business decisions and changing consumer behaviours. She and Mr HUI Chi-fung asked about the timetable for introducing mandatory schemes for reducing waste plastics. Mr HUI further commented that as there was strong public awareness in reducing the use of single-use plastic items, the Administration should take a step further by banning such products through legislative means.

25. Mr KWOK Wai-keung considered that a legislative approach should be taken in regulating microbead-containing products. He enquired whether the Administration had conducted any study on the concentration of microbeads in Hong Kong waters and the potential impact of microbeads on human health through food chain transfer. Mr Kenneth LEUNG also sought elaboration on the policy direction regarding the regulation of microbead-containing products.

26. SEN responded that 2019 Policy Address Supplement introduced six proposed measures to reduce the generation and enhance the management of waste plastics. Some of them would be implemented by legislative means (if there was public support for such measures), while others would be implemented through voluntary schemes as a start. As there was a global trend for manufacturers to gradually cut the use of microbeads in their products, it was expected that the proposed voluntary phase-out scheme for microbead-containing products would yield positive results in reducing their quantity in the market.

27. DDEP(1) also advised that according to the findings of a consultancy study on personal care and cosmetic products containing microbeads, some overseas jurisdictions had prohibited the sale of such products by legislative means while some others (such as Australia and the Netherlands) had taken the voluntary approach. The voluntary phase-out programme in Australia was introduced in 2017, and currently about 97% of personal care and cosmetic products in the Australian market were free of microbeads. The Administration planned to launch the voluntary phase-out scheme in the second half of 2020. It would review the need to ban microbead-containing products at a later stage having regard to the response to and the effectiveness of the voluntary measure. Though the Administration had not conducted any local study on the potential impact of microbeads on human health through food chain transfer, the

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Administration had been collecting and studying relevant overseas literature and scientific research findings relating to microplastics, and so far there was no evidence showing that microplastics had significant impacts on the environment, ecology and public health. The Administration would keep in view the development on this subject.

28. Mr Kenneth LEUNG asked about the timetable for the review of the operation of the Plastic Shopping Bag Charging Scheme and the proposed way forward.

29. SEN responded that the major issues to be considered in the review were the scope of exemption and the charging level. The Administration planned to consult the public on the outcome of the review in 2020. If there was general public support for tightening the exemption scope and adjusting the charging level, the Administration would introduce relevant legislative amendments in due course.

*Yard waste*

30. Ir Dr LO Wai-kwok enquired about the timetable for the development of centralized yard waste treatment facilities and how they could improve the management of yard waste. He and the Chairman also sought information on the recycling outlets for and recycling rate of damaged/felled trees arising from super typhoon Mangkhut in the previous year.

31. DDEP(2) advised that a temporary wood waste collection area had been set up in the Kai Tak Development Area for handling tree waste caused by super typhoon Mangkhut. The collection area received a total of around 8 200 truckloads of tree waste. To make gainful use of such waste as much as practicable, the Administration had launched trials at that time to recycle the materials as solid fuel, mulch for planting purposes, soil cover at landfills, etc. Some 1 300 tonnes of tree waste was recycled eventually. In addition, some 40 tonnes of tree logs were given to interested parties and members of the public for reuse or recycling. The remaining some 20 000 tonnes of tree waste had low reuse/recycling value (mainly because it was wet and/or mixed with other debris) and was delivered to the West New Territories Landfill for disposal. To improve the management of yard waste, the Administration had set up a temporary yard waste disposal and treatment site near T · PARK. Guidelines were issued to the Development Bureau and works departments requiring them to request contractors of public works programmes to properly separate yard waste from other waste and deliver yard waste to the temporary site for onward treatment. In the long run, there was a need to adopt diverse approaches to handling yard waste in an even more effective manner. To this end, the Administration had started to identify suitable sites for the development

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of centralized yard waste treatment facilities, and would explore the use of advanced technologies, such as biochar production technology, to turn yard waste into energy and useful products.

*Waste glass containers*

32. Mr Kenneth LEUNG enquired whether all waste glass containers collected by the glass management contractors had been properly recycled, and what the major outlets for the recycled materials were.

33. SEN advised that the glass management contractors engaged by the Administration would collect and treat waste glass containers properly. The Administration also endeavoured to promote the local recycling of the recovered waste glass containers, which could be used for the production of eco-paver, cement, etc. If necessary, glass management contractors were allowed to export some of the treated glass materials for onward recycling.

*Food waste*

34. Mr HUI Chi-fung enquired about the target(s) and road map for recovering food waste from the community for recycling. SEN responded that before the introduction of arrangements for recovering source-separated food waste from the community on a larger scale, there was a need to ensure that there were sufficient end-of-pipe facilities to treat/recycle such food waste. Apart from developing a network of Organic Resources Recovery Centres, the Administration had been experimenting with the application of food waste/sewage sludge anaerobic co-digestion technology to expand Hong Kong's food waste treatment capacity. A pilot trial was launched in 2019 for the provision of free food waste collection service for primary and secondary schools. The Administration was making preparations for the expansion of the pilot trial in 2020 to other commercial and industrial institutions and housing estates with experience in food waste separation.

*Waste batteries of new energy vehicles*

35. Mr CHAN Hak-kan expressed support for the policy direction of promoting the recycling and proper disposal of waste NEV batteries. Given that manufacturers/suppliers of pure EVs generally had established arrangements for handling waste EV batteries, he sought clarification on whether the Administration would seek to promote the recycling and proper disposal of waste hybrid vehicle batteries, which were often handled by vehicle repair workshops at present. DDEP(ST) affirmed that the relevant study to be conducted by EPD would cover waste hybrid vehicle batteries.

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*Support for recycling industry*

36. The Deputy Chairman expressed concern that some recyclers currently operating on brownfield sites would be forced out of business due to the resumption of private land for public purposes (as announced in 2019 Policy Address) and hence Hong Kong's overall recycling capacity would diminish. He enquired whether ENB had compiled information on recycling operations on brownfield sites, and whether and how it would assist recyclers affected by land resumption in maintaining their businesses.

37. The Under Secretary for the Environment ("USEN") advised that ENB was conducting a consultancy study on the long-term land requirements of the recycling industry. Based on the study findings, ENB would coordinate with the Development Bureau with a view to reserving, during land use planning, suitable sites for the development of the recycling industry.

*Municipal solid waste charging*

38. Ms Starry LEE expressed grave concern that the proposed municipal solid waste ("MSW") charging scheme, if implemented, might be deeply unpopular under the prevailing social conditions. She therefore asked if the Administration would consider promoting waste reduction through positive incentives with reference to the practices of other jurisdictions such as South Korea.

39. Mr HUI Chi-fung enquired about the legislative timetable for the proposed MSW charging scheme. Mr WU Chi-wai queried how the Administration would overcome the potential difficulties in taking enforcement actions against non-compliance with the proposed MSW charging scheme, as the implementation of the Construction Waste Disposal Charging Scheme ("CWDCS") had given rise to construction and demolition ("C&D") waste fly-tipping problems, and the proposed MSW charging scheme would have an even larger scope of application compared to CWDCS. In this connection, he opined that the Administration should avoid using too many surveillance camera systems in public places for monitoring compliance and too much manpower for taking enforcement actions, if the proposed MSW charging scheme was implemented.

40. SEN responded that the Administration had been adopting a multipronged approach to waste reduction, and would continue to put more resources on enhancing the economic incentives for the purpose. For example, the Administration planned to launch a pilot scheme in 2020 on the application of reverse vending machines to enhance recovery efficiency of used plastic beverage containers through a rebate system. Moreover, under the existing

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arrangements, people who brought certain quantities of recyclables to Community Green Stations would receive rewards such as daily commodities.

*Tackling fly-tipping of construction and demolition waste*

41. Ms Starry LEE said that according to her observation, there were still many cases of fly-tipping of C&D waste in various districts, and it generally took considerable time for the Administration to clear such waste after receiving complaints. She sought information on the latest progress of tackling C&D waste fly-tipping and new measures to be introduced for the purpose, if any.

42. SEN responded that as stated in 2019 Policy Address Supplement, the Administration would "deploy resources to co-ordinate relevant Government departments in expediting clearance of abandoned construction waste". DDEP(1) advised that the Administration had set up dedicated enforcement teams to tackle fly-tipping of C&D waste and other types of waste and strengthened inspections at black spots. There were some 12 000 inspections and 421 successful prosecutions against illegal waste disposal (for all types of waste including C&D waste) in 2018. To further improve enforcement efficiency, EPD would continue to strengthen coordination with relevant government departments, set up more dedicated enforcement teams, and enhance communications with relevant stakeholders, such as District Council members.

Admin 43. At the requests of Ms Starry LEE and the Chairman, DDEP(1) undertook to provide, after the meeting, statistics to demonstrate the effectiveness of the Administration's enforcement actions in tackling the fly-tipping of C&D waste, such as (a) the number of dedicated enforcement teams set up by EPD and/or Food and Environmental Hygiene Department for the purpose and the number of staff involved, (b) the frequency of inspections and number of surveillance camera systems installed at fly-tipping black spots, (c) the number of successful prosecutions, and (d) the number of locations that had been removed from the list of C&D waste fly-tipping black spots due to improvement in their environmental hygiene conditions.

*(Post-meeting note: The Administration's written response was circulated to members on 26 November 2019, vide LC Paper No. CB(1)192/19-20(01).)*

*Combating climate change and development of renewable energy*

44. Ms Elizabeth QUAT called on the Administration to strengthen its efforts in mitigating climate change. She considered that the Administration should more proactively promote the development of renewable energy ("RE")



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and encourage the public to reduce electricity consumption. Mr CHAN Hak-kan asked whether the Administration would implement more large-scale RE projects, apart from the planned installation of a larger photovoltaic system at the Plover Cove Reservoir.

45. Mrs Regina IP enquired about the Administration's targets for reducing Hong Kong's greenhouse gas ("GHG") emissions, and whether the Paris Agreement (a legally binding global agreement within the United Nations Framework Convention on Climate Change for dealing with GHG emissions with a view to containing global temperature rise), had set any target for the development of RE that was binding on Hong Kong. Mr HUI Chi-fung also asked about the Administration's target in respect of the development of RE in Hong Kong.

46. SEN responded that:

- (a) the Administration attached great importance to combating climate change. The Steering Committee on Climate Change, which was chaired by the Chief Secretary of Administration, was set up to steer and coordinate the climate actions of various bureaux and departments;
- (b) according to the Paris Agreement, all its Parties should formulate their own targets and strategies in respect of the reduction of GHG emissions; and as decided by the Central People's Government, the Paris Agreement applied to Hong Kong;
- (c) firmly committed to the Paris Agreement, the Administration announced an ambitious carbon intensity reduction target of 65% to 70% by 2030 (using 2005 as the base year) under the Hong Kong's Climate Action Plan 2030+. Annual per-capita GHG emissions would be reduced from over 6 tonnes in 2014 to 3.3 tonnes to 3.8 tonnes by 2030;
- (d) to achieve the above target, the Administration had been promoting decarbonization in four major aspects, namely electricity generation (including the development of RE), electricity consumption, transport and waste management;
- (e) as explained in the Hong Kong's Climate Action Plan 2030+, Hong Kong had a modest RE potential of about 3% to 4% by 2030. To promote the development of RE, the Administration had been taking the lead in implementing large-scale RE projects, such as pilot solar energy projects at reservoirs and a landfill, and

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development of waste-to-energy facilities; and

- (f) to gauge the views of the community on Hong Kong's strategies and measures for further reducing GHG emissions by 2050, SDC was conducting a public engagement exercise on LTDS at the invitation of the Administration. A three-month public interaction phase of the public engagement exercise had just been concluded.

47. Mrs Regina IP asked about youth participation in the discussion and setting of policies on combating climate change. As the Steering Committee on Climate Change was an internal committee of the Government comprising government officials only, she suggested that a separate consultative body be set up to better engage the youths in the setting of climate actions.

48. SEN responded that two youth members had been recruited to SDC through the Member Self-recommendation Scheme for Youth. To promote youth participation in the discussion on LTDS and climate policies, SDC had put extra efforts in inviting youth groups to give views during the public interaction phase of the public engagement exercise. An independent analysis and reporting agency would comprehensively analyze all views collected during the public engagement exercise after its completion.

49. Ms Elizabeth QUAT asked whether new measures would be implemented to facilitate the adoption of "sponge city" urban planning and development practices. The Chairman also enquired whether the Administration would promote the installation of rainwater harvesting systems on building rooftops.

50. SEN advised that issues relating to the development of a "sponge city" were generally within the purview of the Development Bureau and relevant works departments. The Administration had internal guidelines on green government buildings, which included suggestions on harvesting rainwater. The guidelines were updated from time to time.

Water quality

51. Dr Priscilla LEUNG expressed appreciation for the Administration's efforts in mitigating nearshore odour problems, especially in the vicinity of the Hung Hom Promenade. However, she observed that the odour problems persisted in some other coastal areas, such as Tsim Sha Tsui Promenade. She asked about the reasons for that and the latest developments in enhancing the quality of coastal waters, including whether the wider application of hydrogel would be considered, the progress of rectifying foul water pipe misconnections, and whether biochemical odour removal methods would be introduced.

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52. DDEP(1) responded that a trial conducted in Hung Hom had confirmed the effectiveness of hydrogel in reducing odour from the drain. The Administration would explore territory-wide application of hydrogel as far as practicable. Over the past 10 years, about 84% of misconnection cases had been rectified. EPD would continue to maintain close collaboration with relevant government departments in following up the remaining/new cases, some of which had led to discharge of wastewater to Tsim Sha Tsui Promenade. The Administration would also explore other methods, including biochemical methods, to further enhance coastal water quality and mitigate odour problems.

Tackling marine refuse

53. The Deputy Chairman said that the fisheries trade was generally sceptical about the Administration's ability to promptly remove floating refuse caused by marine incidents. A case in point was that the Administration had not provided immediate assistance to Hong Kong fishermen in handling the large quantity of refuse they netted in the aftermath of an illegal dumping activity in the waters of Zhuhai few years ago. He enquired whether the Administration had reviewed its emergency response mechanism in respect of marine pollution incidents. To enable quicker removal of floating refuse caused by marine incidents, he suggested that the Administration should consider setting up temporary sites onshore for refuse disposal, deploying large refuse reception vessels to coordinate cleanup actions, and/or encouraging private vessels' participation in the cleanup actions through the provision of financial rewards.

54. DDEP(1) responded that to enable more effective marine environmental management, the Administration revamped the Inter-departmental Working Group on Clean Shorelines and renamed it as Inter-departmental Working Group on Marine Environmental Management in early 2018, with its terms of reference expanded to tackle all marine environmental incidents under the coordination of ENB. Two task forces were set up under the working group, namely the Task Force on Marine Refuse and Task Force on Marine Environmental Incidents. The Marine Department had also expanded its fleet of vessels to improve its emergency response ability. EPD would continue to explore with the Marine Department and other departments further ways to enhance marine environmental management. In addition, EPD had been maintaining close communication with the relevant authorities of Zhuhai City and other cities in the Guangdong-Hong Kong-Macao Greater Bay Area and had established emergency response mechanisms with them to deal with marine refuse problems with a view to enhancing regional cooperation in this regard.

Admin 55. At the Deputy Chairman's request, the Administration would provide updated information on the emergency response mechanism and measures for

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tackling floating refuse caused by marine incidents.

*(Post-meeting note: The Administration's written response was circulated to members on 25 November 2019, vide LC Paper No. CB(1)180/19-20(01).)*

Controlling nuisance caused by external lighting

56. Ms Elizabeth QUAT and Mr HUI Chi-fung enquired about the latest development in respect of controlling nuisance caused by external lighting, and the timetable for controlling light pollution through legislative means.

57. Mr KWOK Wai-keung expressed disappointment about the delay in the review of the effectiveness of the Charter on External Lighting. He commented that the voluntary approach currently adopted had failed to control nuisance caused by external lighting, as some owners/operators of external lighting installations had persistently ignored public complaints and the Administration's advice.

58. SEN responded that the Administration was conducting a public engagement exercise to gauge public views on measures to manage external lighting, and the Working Group on External Lighting would also present its recommendations to the Administration on the way forward after the completion of its review.

Nature conservation

59. The Chairman suggested that the Administration should consider improving transport infrastructure in country parks to increase their accessibility and promote green tourism. He specifically suggested constructing a new road to enhance the connection between Tai Mo Shan and the area around Pat Heung, and providing park-and-ride facilities and more parking spaces in some country parks.

60. SEN and DDEP(2) advised that the Agriculture, Fisheries and Conservation Department ("AFCD") had conducted a public consultation in 2019 on enhancing the recreational and educational potential of country parks and special areas in Hong Kong. With reference to the views collected, the Administration would explore ways to enhance the country parks' facilities while conserving the natural ecology, so as to make the country parks more enjoyable for people in different age groups and with different needs.

61. DDEP(2) added that a Countryside Conservation Office had been set up for taking forward conservation and revitalization projects in remote

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countryside. The Office was currently implementing minor improvements works in two pilot areas in Lai Chi Wo and Sha Lo Tung, and would explore innovative ways to revitalize remote countryside. It was expected that such efforts could help promote sustainable economic activities in remote countryside such as green tourism.

62. Mr HUI Chi-fung enquired about the progress of expanding the Sham Wan Restricted Area to enhance protection of green turtles. SEN advised that relevant preparatory work was underway and the Administration tentatively planned to update the Panel on this issue in 2020.

Other issues

*Communications with stakeholders*

63. In view of the social unrest in recent months, Ms Starry LEE opined that politically appointed officials ("PAOs") should step up their efforts in communicating with members of the public in order to have a firmer grasp of the social conditions and public criticisms over the Government's policies. She asked about the work of PAOs in ENB in this regard.

64. SEN responded that he, USEN and the Political Assistant to SEN had spared no efforts in the past few months in communicating with stakeholders. While it was a convention for ENB's officials to meet green groups and other relevant stakeholders to discuss environment policies during the Legislative Council's summer recess each year, in view of the prevailing social conditions, this year the stakeholders (including tertiary and secondary students) had been specifically invited to give views on how the Government might resolve the social conflicts.

*Future arrangements for dedicated liquefied petroleum gas filling stations*

65. Mr Frankie YICK enquired about the future arrangements for dedicated LPG filling stations after the expiry of their existing contracts. Expressing concern that discontinuation of the dedicated LPG filling stations might lead to an LPG price hike, he called on the Administration to put in place suitable arrangements to stabilize the LPG price so as to assist transport operators using LPG vehicles in containing their operating costs.

66. DDEP(3) advised that ENB/EPD was devising the future arrangements for dedicated LPG filling stations jointly with relevant bureaux and departments. The proposal was about to be completed, and the Administration planned to brief Members on the future arrangements in the first half of 2020.

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*Competition in the unleaded petrol market*

67. Mr WU Chi-wai said that according to his observation, the spread between the retail and import prices of unleaded petrol had been widening in recent years and appeared to remain consistent across oil companies even after the entrance of new operators into the market. He therefore questioned whether the Administration had reviewed the effectiveness of its auto-fuel policy in promoting competition in the market and investigated into possible anti-competitive conduct of oil companies.

Admin 68. The Chairman pointed out that issues relating to competition in the auto-fuel market fell within the purview of the Panel on Economic Development. USEN advised that the Administration would provide a brief written response to the question raised by Mr WU Chi-wai for members' reference.

*(Post-meeting note: The Administration's written response was circulated to members on 12 November 2019, vide LC Paper No. CB(1)137/19-20(02).)*

**IV. Review of the Seventh Technical Memorandum for Allocation of Emission Allowances for Power Plants**

(LC Paper No. CB(1)31/19-20(04) — Administration's paper on "Review of the Seventh Technical Memorandum for Allocation of Emission Allowances for Power Plants"

LC Paper No. CB(1)31/19-20(05) — Updated background brief on "Technical Memorandum for Allocation of Emission Allowances in Respect of Specified Licences" prepared by the Legislative Council Secretariat))

Briefing by the Administration

69. USEN said that to progressively reduce the emissions from power generation, the Government had been issuing Technical Memoranda ("TMs") under section 26G of the Air Pollution Control Ordinance (Cap. 311) ("APCO") to allocate emission allowances for sulphur dioxide ("SO<sub>2</sub>"), nitrogen oxides ("NO<sub>x</sub>") and respirable suspended particulates ("RSP"). To further tighten the emission allowances for power plants, the Administration planned to issue the

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Eighth TM, which would take effect from 1 January 2024. Compared to the Seventh TM, the proposed Eighth TM would bring about a reduction of 40%, 29% and 20% of the emission allowances for SO<sub>2</sub>, NO<sub>x</sub> and RSP respectively.

70. USEN remarked that APCO stipulated that each emission year in respect of a TM should commence on 1 January, and that an allocation of emission allowances made by a TM could only take effect if the TM could be promulgated at least four years prior to the emission year. In order for the emission allowances set out in the proposed Eighth TM to take effect from 1 January 2024, the TM had to be promulgated before end 2019. The Administration had therefore already published it in the Gazette for tabling at the Council meeting of 30 October 2019 in order to meet the scrutiny and implementation timetable.

Discussion

*Projected emissions from power generation in 2024 and beyond*

71. Ir Dr LO Wai-kwok considered that the efforts of the Administration and the two companies in reducing emissions from power generation were commendable, and the emission caps under the proposed Eighth TM were acceptable. He noted from Table 1 in the Administration's paper (LC Paper No. CB(1)31/19-20(04)) that there was a projected 2% increase in the RSP emission from Black Point Power Station ("BPPS") of CLP Power Hong Kong Limited ("CLP") in 2024 and beyond compared to the emission allowance under the Seventh TM. He sought explanation for that.

72. The Assistant Director of Environmental Protection (Air Policy) ("AD(AP)") explained that a new gas-fired unit would be commissioned in BPPS and the projected slight increase in BPPS's RSP emission was due to the projected increase in its generation capacity due to the additional gas-fired unit. Notwithstanding this, the RSP emission from CLP's Castle Peak Power Station would be reduced due to the projected reduced generation from the coal-fired units, and there was still a net reduction by 26% of the overall projected RSP emission from all power stations of CLP in 2024 and beyond compared with the Seventh TM level.

73. The Chairman enquired why the projected reduction in the RSP emission of Hongkong Electric Company, Limited ("HEC") was significantly less than that of CLP.

74. AD(AP) and USEN advised that the projected reduction in the RSP emissions of both HEC and CLP were mainly contributed by the retirement of some of their coal-fired units and the reduced generation from the remaining

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coal-fired units in the coming years, as explained in paragraphs 13 and 14 of LC Paper No. CB(1)31/19-20(04). All existing coal-fired units of the two power companies were equipped with electrostatic precipitators to control the emission of particulates, including RSP; but different precipitator models were used at different units, with varying efficiencies in particulates removal. The electrostatic precipitator at a coal-fired unit of HEC's to be retired was one of the most efficient ones used in HEC's power plants. This was the major reason why the projected reduction in the RSP remission of HEC was less than that of CLP within the time frame concerned. AD(AP) also mentioned that the low-emission coal used by HEC in recent years had relatively higher ash contents compared to that used in the past, and the Administration had taken this factor into account when formulating the emission allowances for HEC under the proposed Eighth TM.

*Promoting energy efficiency and conservation*

75. Mr Tony TSE expressed support for the further tightening of emission allowances for power plants. He asked about the Administration's policies on promoting energy efficiency and conservation ("EE&C"). The Principal Assistant Secretary for the Environment (Electricity Research) responded that:

- (a) as buildings accounted for about 90% of Hong Kong's energy consumption, enhancing EE&C in buildings could contribute significantly to the reduction of energy intensity, air pollution and greenhouse gas ("GHG") emissions;
- (b) the Administration had taken the lead by setting a target to reduce electricity consumption in government buildings by 5% in five years from 2015-2016. Energy audits for about 340 government buildings had been completed and some \$900 million had been earmarked to implement energy saving projects. Over the past three years, the Administration had already achieved about 4.9% saving in electricity consumption. It was expected that the said target could be exceeded by the end of the five-year period;
- (c) as announced in 2019 Policy Address, the Administration had set a more progressive "Green Energy Target" with a view to further improving the use of energy within the whole Government by 6% by 2024-2025; and
- (d) apart from the above, the Administration had been encouraging all other sectors of the community to adopt EE&C practices, and would continue to implement measures to reduce energy intensity, such as developing green buildings, raising statutory energy



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efficiency standards, expanding the Mandatory Energy Efficiency Labelling Scheme, and constructing more district cooling systems.

76. USEN supplemented that the Administration had also been promoting retro-commissioning in existing buildings, which was a systematic process to check the energy-consuming equipment of buildings and to identify potential areas to improve energy efficiency. Retro-commissioning generally could contribute to some energy saving without the need to replace or upgrade the existing equipment.

77. The Chairman expressed concern about the potential difficulties in driving behavioural change towards energy conservation. USEN responded that the general public could contribute to energy saving through the use of energy-efficient appliances, which did not necessarily require a change of daily habits.

*Future energy supply and tariff implications*

78. The Deputy Chairman commented that the Administration should keep a watchful eye on the international developments in fuel technologies, with a view to identifying suitable unconventional energy sources (such as natural gas hydrates) to diversify Hong Kong's energy supply. He asked whether the Administration had participated in the research and development of new energy supply and/or cooperated with research institutions in the Mainland or overseas on the matter. The Chairman enquired whether the current fuel mix plan would need to be reviewed to facilitate the power companies' compliance with the proposed Eighth TM.

79. USEN responded that power generation was a major emission source of GHGs and other air pollutants. Although technological advances had enabled the utilization of formerly-untapped fossil fuels such as natural gas hydrates and shale gas, thus helping to diversify energy supply, the use of fossil fuels was considered unsustainable in the long run due to their limited reserves and the GHG emissions involved in their production, transportation and consumption. Broadly speaking, as far as the fuel mix for power generation was concerned, the most important factors were impact on local air quality, implications on GHG emissions, and sustainability and reliability of the energy sources. Hong Kong's current fuel mix plan was to gradually increase the proportion of gas generation and phase down coal generation to help achieve the carbon intensity reduction target for 2030 stipulated in the Hong Kong's Climate Action Plan 2030+. It was believed that with the increasing availability of unconventional natural gas sources in the world, natural gas would remain a reliable energy option within the time frame of the current fuel mix plan. Moreover, the offshore liquefied natural gas terminal under construction by the two power companies was expected to enhance the security and diversity of natural gas

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supply, thereby enabling more stable power supply in Hong Kong.

80. As regards Hong Kong's fuel mix for power generation beyond 2030, USEN advised that this matter was being considered in the context of LTDS. There would be a need to reduce the use of fossil fuels and increase the use of sustainable energy (such as biomass and waste-to-energy generation) or even zero-carbon energy (such as nuclear energy and certain types of renewable energy) in order to achieve the carbon reduction target for 2050 that was compliant with the Paris Agreement's relevant target. SDC had recently concluded the public interaction phase of the public engagement on LTDS. Upon receiving SDC's recommendations, the Administration would formulate LTDS for Hong Kong, including initiatives to decarbonize the electricity sector while ensuring the security of energy supply.

81. Mr WU Chi-wai considered that the Administration should provide a comprehensive document on matters relating to fuel mix, emission reduction targets and emission allowances for power plants, with details on the estimated tariff implications under different scenarios, so that members of the public and Legislative Council Members could weigh the benefits of pursuing environmental goals against the costs in a meaningful manner. He illustrated his point with the example that if Hong Kong was to achieve electricity self-sufficiency and maintain electricity tariffs at affordable levels at the same time, there might be a need to slow down the pace of decarbonization of the energy sector, given that local generation using low-carbon or zero-carbon energy was generally costly. In addition to the above, he requested the Administration to explain the potential impact on electricity tariffs arising from the construction and operation of new gas-fired units by the two power companies for the purpose of complying with the proposed Eighth TM, including whether the expiry of the current electricity charges relief scheme (on 31 December 2023) immediately before the inauguration of the proposed new emission allowances would exert heavy pressure on tariffs.

82. In response to the views above, USEN emphasized that the proposed Eighth TM was formulated against the backdrop of the Hong Kong's Climate Action Plan 2030+. It was therefore in line with the well-discussed fuel mix plan up to 2030, which had a focus on replacing coal generation with gas generation. As regards the tariff implications arising from the construction and operation of new gas-fired units by the power companies, the Administration considered it premature at this stage to make any meaningful assessment for 2024 and beyond. This was because how the increase in the power companies' capital investments would be reflected in electricity tariffs would depend on a host of factors, including future fuel costs, pace of capital investments, operating costs, sales volumes, etc. As common households as well as commercial and industrial establishments could normally reduce energy

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consumption by 20% to 30% through the use of energy-efficient equipment and electrical appliances, it was expected that the resultant cost savings could offset the increase in electricity tariffs by that time.

83. The Chairman remarked that issues about energy supply and fuel mix were monitored by the Panel on Economic Development. Nevertheless, he appreciated that those issues were often intertwined with environment-related issues. He suggested visualization of the road map for decarbonization, including the emission reduction targets at different stages and the corresponding actions to be taken, in the relevant paper when the Administration briefed this Panel on the progress/outcomes of the public engagement on LTDS. USEN took note of the Chairman's suggestion.

Conclusion

84. Members did not raise objection to the proposed Eighth TM. The Chairman said that the TM would be tabled at the Council meeting of 30 October 2019 for negative vetting.

**V. Any other business**

85. There being no other business, the meeting ended at 4:49 pm.

Council Business Division 1  
Legislative Council Secretariat  
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