

立法會
Legislative Council

LC Paper No. CB(1)1472/20-21
(These minutes have been seen
by the Administration)

Ref : CB1/PL/EA

Panel on Environmental Affairs

Minutes of meeting
held on Monday, 27 September 2021, at 2:30 pm
in Conference Room 2 of the Legislative Council Complex

- Members present** : Hon Vincent CHENG Wing-shun, MH, JP (Chairman)
Hon Paul TSE Wai-chun, JP (Deputy Chairman)
Hon WONG Ting-kwong, GBS, JP
Hon CHAN Hak-kan, SBS, JP
Hon Steven HO Chun-yin, BBS, JP
Hon KWOK Wai-keung, JP
Hon Elizabeth QUAT, BBS, JP
Ir Dr Hon LO Wai-kwok, GBS, MH, JP
Dr Hon Junius HO Kwan-yiu, JP
Hon SHIU Ka-fai, JP
Hon Kenneth LAU Ip-keung, BBS, MH, JP
Hon Tony TSE Wai-chuen, BBS, JP
- Member attending** : Hon Michael TIEN Puk-sun, BBS, JP
- Member absent** : Hon Frankie YICK Chi-ming, SBS, JP
- Public Officers attending** : **For item III**
Mr WONG Kam-sing, GBS, JP
Secretary for the Environment

Mr Bruno LUK , JP
Deputy Director of Environmental Protection (Waste
Reduction Policy)
Environmental Protection Department

Mr WONG Chuen-fai, JP
Assistant Director (Waste Recycling Community
Programme Review)
Environmental Protection Department

For item IV

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

Dr Samuel CHUI, JP
Deputy Director of Environmental Protection (1)
Environmental Protection Department

Dr Vanessa AU
Acting Assistant Director (Environmental
Compliance)
Environmental Protection Department

Mr Lawrence CHEUNG
Principal Environmental Protection Officer (Regional
North)
Environmental Protection Department

Dr Kenneth LEUNG
Principal Environmental Protection Officer (Air
Science)
Environmental Protection Department

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. Confirmation of minutes

(LC Paper No. CB(1)1292/ — Minutes of the meeting held on
20-21 28 June 2021

LC Paper No. CB(1)1341/ — Minutes of the meeting held on
20-21 19 July 2021)

The minutes of the meetings held on 28 June and 19 July 2021 were confirmed.

II. Information papers issued since last meeting

2. Members noted that no information paper had been issued since the last meeting.

3. The Chairman remarked that the briefing by the Secretary for the Environment ("SEN") on the Chief Executive's 2021 Policy Address would be conducted on Tuesday, 12 October 2021 at 10:45 am.

III. Community recycling network and Green Outreach

(LC Paper No. CB(1)1338/ — Administration's paper on "Community
20-21(01) Waste Reduction and Recycling Support"

LC Paper No. CB(1)1338/ — Background brief on "Community
20-21(02) recycling network" prepared by the
Legislative Council Secretariat)

Briefing by the Administration

4. SEN said that following the recent passage of the Waste Disposal (Charging for Municipal Solid Waste) (Amendment) Bill 2018 by the Legislative Council, the preparatory period for the implementation of municipal solid waste ("MSW") charging had commenced. The Environmental Protection Department ("EPD") would continue to strengthen waste reduction and recycling support at the community level through various measures, such as expanding the rebranded

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community recycling network ("CRN"), providing outreaching service in all 18 districts, strengthening central collection services for recyclables of low market value, and formulating strategies that were tailored to the needs of different domestic premises.

5. With the aid of a PowerPoint presentation, the Assistant Director (Waste Recycling Community Programme Review) ("AD(WRCPR)") briefed the Panel on the Administration's holistic strategy for community waste reduction and recycling support, which included the following key elements:

- (a) *for large housing estates*: encouraging stakeholders to set up their own clean recycling programmes through the EPD Programme on Source Separation of Waste, and providing on-site support through the Green Outreach (which was the outreaching team set up under EPD);
- (b) *for clusters of residential premises without their own recycling programmes*: providing recycling support through over 100 collection points of CRN;
- (c) *for relatively scattered residential premises such as those in the rural areas*: providing kerb-side recycling bins in public spaces;
- (d) *green living education*: strengthening the role of Recycling Stations (formerly known as Community Green Stations, now under the new brand of GREEN@COMMUNITY) to serve as regional environmental protection hubs; and
- (e) *applications of smart technologies*: facilitating wider adoption of clean recycling practices by making use of smart recycling technologies.

(*Post-meeting note*: The PowerPoint presentation materials were circulated to members on 27 September 2021, vide LC Paper No. CB(1)1372/20-21(01).)

Discussion

Community recycling network and the Green Outreach

6. Mr Tony TSE expressed support for the implementation of measures for promoting resource recovery and turning waste into energy or resources. He considered the rebranding of CRN a refreshing change, and suggested that the Administration should continue to enhance publicity efforts to promote the use

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of such facilities by the public.

7. Ms Elizabeth QUAT expressed strong support for the expansion and rebranding of CRN and the provision of outreaching service to promote waste reduction, source separation and recycling.

8. Mr KWOK Wai-keung considered that CRN was still at an early stage of development, and the Administration should continue to strengthen CRN's function in raising public awareness of recycling and proper waste separation. He enquired whether arrangements were in place for regular collection of waste batteries, light bulbs and electrical/electronic equipment at fixed locations. Given Hong Kong's waste challenge and the prevailing unemployment situation, he suggested that the Administration should create temporary jobs for promotion of CRN and collection of recyclables.

9. In response to the above views and suggestions, SEN advised that the rebranded CRN consisted of Recycling Stations, Recycling Stores and Recycling Spots. All these facilities currently accepted at least eight types of common recyclables, including rechargeable batteries, fluorescent lamps and tubes, and electrical/electronic equipment. There were over 100 Recycling Spots, covering all 18 districts, which provided recyclable collection services at fixed locations on a weekly schedule. Members of the public who brought clean recyclables to any collection point under CRN could earn GREEN\$ (Greeny Coins) for redemption of gift items. Overall feedback from the community on the services of CRN had all along been positive. The Administration would continue to enhance publicity of CRN; and was preparing to set up 10 more Recycling Stores, which were expected to progressively commence services starting from late 2021 or early 2022. Jobs would be created through the setting up of these Recycling Stores. In addition, the Administration would suitably strengthen its manpower for complementary waste reduction and recycling measures to prepare for the implementation of MSW charging.

10. The Chairman considered that the Administration should strengthen public education on clean recycling during the preparatory period for the implementation of MSW charging. Noting that CRN currently had a coverage of about 65% of single-block buildings ("SBBs") in the territory, he urged the Administration to expand CRN expeditiously so as to enhance recycling support for residents in SBBs and other old buildings, which usually did not have their own resource recovery facilities or programmes. Moreover, he asked about the effectiveness of the Green Outreach in promoting clean recycling practices.

11. AD(WRCPR) responded that in view of the diverse locations of SBBs and other old buildings, EPD endeavoured to provide recycling support for the residents concerned through Recycling Spots, which were more mobile in nature

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compared with Recycling Stations and Recycling Stores. Recycling Spots were operated at fixed locations on a weekly schedule to collect various types of recyclables. EPD would mount a publicity campaign in the coming months to promote the services of the Recycling Spots, and would closely monitor public reception to individual Recycling Spots for evaluation of service effectiveness. In addition, through the establishment of a direct and effective liaison network with community stakeholders, the Green Outreach was able to gain deeper understanding of the coverage and distribution of facilities that could provide recycling support for residents in nearby SBBs and other old buildings. The Administration would then conduct analyses on potential enhancements to CRN based on the Green Outreach's findings.

12. In response to Mr Tony TSE's questions, SEN and AD(WRCPR) advised that:

- (a) the Environment Bureau had been discussing with the Development Bureau how to further enhance the provision of resource recovery facilities in new developments; and
- (b) staff members of the Green Outreach were recruited in phases to tie in with the expansion of the outreaching service to cover all 18 districts. The Green Outreach now comprised about 200 full-time staff members.

Downstream processing of recyclables

13. Ms Elizabeth QUAT expected that the implementation of MSW charging would lead to an increase in the overall quantity of recyclables recovered. To prepare for this change, she considered it imperative that the Administration should improve the viability of local recycling businesses through timely policy measures, so as to ensure that there would be sufficient local outlets for local recyclables, and reduce transport-related carbon emissions arising from the export of recyclables or recycled materials/products. For example, she suggested that government bureaux/departments should be required to use a certain ratio of locally-recycled products in their projects and/or engage home-grown recycling businesses for provision of services. She also raised concern about the difficulty faced by a Hong Kong recycler of rechargeable batteries in identifying suitable outlets for the recyclables.

14. As some recyclers had been found in the past mixing source-separated recyclables with other waste and transporting recyclables to disposal facilities, Mr Tony TSE and Ir Dr LO Wai-kwok suggested that the Administration should explain to the public the current situation of downstream processing of recyclables and the fates of different types of recyclables, with a view to

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bolstering public confidence in the reliability of recyclers' operations and effectiveness of various recycling initiatives.

15. SEN responded that the recycling businesses of certain types of recyclables had become unviable due to low market prices, price fluctuations and other factors. To support the recycling of these recyclables (such as food waste, waste paper, waste plastics, waste glass containers and e-waste), the Administration had been progressively expanding their downstream collection and recycling through various initiatives, including the provision of collection and/or recycling services through government contracts. Food waste was the largest component of landfilled MSW in Hong Kong. The Administration would continue to expand Hong Kong's food waste recycling capacity to turn food waste into energy or compost. For waste paper recycling, the Administration was conducting a tender exercise for the construction of a modern pulping facility in EcoPark, Tuen Mun. Contractors of the free collection service for waste plastics under the Plastic Recycling Pilot Scheme were required to process the plastics collected into plastic raw materials or recycled plastic products to be exported or supplied to the local market. The Administration would actively explore the possibility of using locally-recycled plastic materials for the production of designated bags for MSW charging. Moreover, the majority of recycled products/materials from locally-recovered waste glass containers had been used in local public works projects. As regards the case mentioned by Ms Elizabeth QUAT concerning a rechargeable batteries recycler, the Administration was given to know that proper outlets had eventually been identified for the recyclables.

16. SEN further advised that the Administration prudently monitored the performance of relevant government contractors to ensure that a high proportion of collected recyclables would be properly turned into resources or energy. Nevertheless, it was inevitable that some contaminants were found in collected recyclables. Heavily-contaminated recyclables would not be suitable for recycling and could only be disposed of at landfills. With a view to reducing the overall contamination levels of recyclables and increasing their recycling rates, the Administration had been encouraging the public to adopt clean recycling practices. It was envisaged that with the implementation of MSW charging in future, waste producers would pay more attention to ensuring the cleanliness of their source-separated recyclables, with a view to reducing payment of MSW charges.

17. Ir Dr LO Wai-kwok called on the Administration to continue to promote the adoption of clean recycling practices by waste producers and recyclers, with a view to increasing the recovery and recycling rates of different materials.

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Smart recycling technologies

18. The Chairman expressed concern about the occasional overloading problems of reverse vending machines ("RVMs") installed by EPD for the recovery of plastic beverage containers. He asked how the Administration would improve the management of those RVMs.

19. Mr Tony TSE called on the Administration to encourage the private sector to install more RVMs for the recovery of different recyclables.

20. SEN responded that real-time information on the location and available space of each RVM under the relevant pilot scheme was provided on a dedicated website for the public's reference. EPD would continue to increase the number and enhance the management of its RVMs under the pilot scheme. The Administration also welcomed the provision of RVMs by the private sector.

21. Mr KWOK Wai-keung enquired how the Administration supported research and development ("R&D") on recycling technologies, with a view to upgrading the local recycling operations.

22. SEN responded that the Green Tech Fund provided focused funding support for R&D on green technologies, including those relating to waste management and recycling. Approval would be given to the first batch of projects shortly. In addition, the Recycling Fund had been providing support for individual recyclers as well as industry organizations to implement projects that could enhance the operational standards or productivity of the industry.

23. The Chairman asked about the Administration's plan for promoting the adoption of smart collection bins for collecting domestic food waste.

24. SEN responded that the Administration had provided subsidies for some housing estates and villages to purchase smart recycling bins for the collection of food waste. Some of these smart recycling bins were expected to commence operation in about one month. Subject to the experience gained from operating the smart recycling bins, the Administration planned to progressively expand the application of smart technologies for food waste recovery from the community.

25. In response to Mr Tony TSE's question about the Pilot Programme on Smart Recycling Systems, SEN advised that initial outcomes of the pilot programme were promising. The Administration planned to progressively expand the provision of smart recycling facilities in all 18 districts.

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Waste-to-energy infrastructure

26. Ir Dr LO Wai-kwok said that there was growing public support for the application of waste-to-energy technologies. He asked about the Administration's plan for the construction of the second modern waste incineration plant.

27. SEN responded that the Administration endeavoured to progressively increase Hong Kong's waste-to-energy capacity, which would contribute to decarbonization. The Administration would update Hong Kong's climate action plan and would set out in the updated document the preliminary idea on the provision of more waste-to-energy facilities.

Producer Responsibility Scheme on Waste Electrical and Electronic Equipment

28. Mr SHIU Ka-fai asked about the implementation progress of the Producer Responsibility Scheme on Waste Electrical and Electronic Equipment ("WPRS") and operation of WEEE • PARK (an e-waste treatment and recycling facility in EcoPark), including the annual quantity of e-waste processed by WEEE • PARK, the number and natures of complaints received by the operator, and how the Administration monitored the operator's performance. Noting that some consumers had paid additional fees to sellers of electrical appliances for the removal of abandoned appliances, Mr SHIU expressed concern about the financial burden on the public posed by WPRS.

29. The Deputy Director of Environmental Protection (Waste Reduction Policy) ("DDEP(WRP)") responded that according to the requirements of WPRS, sellers of regulated electrical equipment ("REE") should arrange for each consumer a free removal service to dispose of the same class of equipment abandoned by the consumer. Should the WEEE • PARK operator be engaged for the removal service, the abandoned equipment could be collected within one or two working days after the request was received from the consumer, while the operator's performance pledge was to collect the e-waste in three working days. The WEEE • PARK operator also provided collection service for e-waste outside WPRS's scope, and its performance pledge in this regard was to collect e-waste within seven working days after the request was received. In over 99% of the cases, e-waste was collected by the WEEE • PARK operator in accordance with the performance pledge. Complaints received by the operator were mostly about difficulties in arranging for e-waste collection at the consumers' preferred time slots. It had been observed that some REE sellers provided upgraded services to consumers at an extra charge whereby the abandoned equipment would be collected even earlier. While WPRS did not prohibit such an arrangement between a REE seller and consumers, it remained a duty of the seller to inform consumers of the availability of the statutory free removal service.

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30. Regarding the operation of WEEE • PARK, DDEP(WRP) advised that the amount of e-waste collected and processed by the facility was on an increasing trend. The facility processed more than 23 000 tonnes of e-waste in 2020 and over 15 000 tonnes since the start of 2021; and the majority of collection orders were statutory free removal services. With a design capacity of 30 000 tonnes a year, WEEE • PARK could process about half of the abandoned REE generated in Hong Kong annually. Under the contract entered into between the Government and WEEE • PARK's operator, the operation fee payable to the operator was calculated based on the actual weight of e-waste collected and treated.

31. Mr SHIU Ka-fai considered that the Administration should enhance publicity of the statutory free removal service, so that consumers could make informed choices regarding e-waste removal.

IV. The use of smart technologies for environmental protection

(LC Paper No. CB(1)1338/ — Administration's paper on "Application
20-21(03) of Innovative Technologies in Protecting
Environment")

Briefing by the Administration

32. With the aid of a PowerPoint presentation, the Principal Environmental Protection Officer (Air Science) ("PEPO(AS)") and the Deputy Director of Environmental Protection (1) ("DDEP(1)") briefed the Panel on the application of real-time/remote monitoring facilities, light detection and ranging technology, micro air monitoring equipment, unmanned aircraft systems, unmanned submarine and other cutting-edge smart technologies by EPD to strengthen its environmental monitoring and enforcement actions.

(Post-meeting note: The PowerPoint presentation materials were circulated to members on 27 September 2021, vide LC Paper No. CB(1)1372/20-21(02).)

Discussion

33. Ms Elizabeth QUAT, Mr Tony TSE and Mr KWOK Wai-keung expressed support for the application of innovative technologies in protecting the environment, improving work efficiency, saving manpower and facilitating enforcement. They urged the Administration to continue introducing more advanced technologies for enhancing environmental protection.

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Combating illegal landfilling and fly-tipping activities

34. Ms Elizabeth QUAT enquired about the number of Smart Drones deployed by EPD to remotely surveil illegal deposition of construction and demolition ("C&D") waste and landfilling activities in the territory, and the number of black spots so identified. As public places where surveillance cameras had not been set up might become fly-tipping black spots, Mr KWOK Wai-keung and Ms QUAT suggested the Administration apply innovative technologies on a wider scale (e.g. extending the coverage of surveillance cameras), with a view to more effectively combating illegal deposition of C&D waste and landfilling activities. Mr Tony TSE considered that any optimum use of the Smart Drones should take into account resources availability and operational constraints. For instance, round-the-clock operation of Smart Drones might not be feasible.

35. The Acting Assistant Director (Environmental Compliance) ("AAD(EC)") and DDEP(1) advised that the functions of the 23 Smart Drones currently deployed by the Environmental Compliance Division of EPD varied among their categories. Two of them were equipped with 200x Zooming Power Camera (which could capture wide aerial view with high resolution) for remote surveillance of illegal deposition of C&D waste and landfilling activities of large geographical extent (particularly in rural areas) while some others were used to conduct surveillance at closer range. EPD would consider procuring more advanced equipment as appropriate and necessary and provide relevant training for staff concerned.

36. DDEP(1) further advised that more than 200 surveillance cameras had been installed across the territory, which were operated on a 24-hour basis with infrared night vision function and could be flexibly deployed to different locations on need basis. EPD analysed the information collected by the surveillance cameras to identify black spots and take necessary enforcement or other follow-up actions. Referring to the some 60 successful prosecution cases relating to a black spot in the North District, DDEP(1) said that installation of surveillance cameras at black spots had proved to be effective in collecting evidence for instituting prosecutions. In addition, EPD had established a Smart Command and Control Centre where an integrated video wall could simultaneously live-stream all of the surveillance cameras so that the commanders in the Centre could analyse the real-time images and deploy enforcement actions with frontline field staff suitably. If necessary, EPD would also conduct joint enforcement actions with other departments concerned. DDEP(1) stressed that while introduction of innovative technologies could enhance work efficiency and enforcement capability, manpower input was still necessary for compliance monitoring and enforcement.

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37. AAD(EC) supplemented that EPD had suitably deployed manpower and/or Smart Drones to surveil and inspect recycling sites in the New Territories under a risk-based approach, and taken follow-up actions to ensure their compliance with relevant environmental laws, such as issuance of Air Pollution Abatement Notices requiring owners concerned to take remedial action to reduce/eliminate emission of air pollutants from their recycling sites.

38. Ms Elizabeth QUAT and Mr Tony TSE urged the Administration to strengthen inter-departmental coordination in the sharing of intelligence and information gathered through surveillance equipment and systems, with a view to optimizing the use of resources and enhancing enforcement.

39. The Under Secretary for the Environment ("USEN") advised that relevant arrangement was already in place to ensure effective information sharing among various departments. For example, where cases of illegal deposition of C&D waste and landfilling might involve unauthorized occupation of government land and breaches of lease conditions, EPD would share the intelligence and information obtained with the departments concerned (e.g. the Lands Department and the Planning Department) for the latter to take enforcement actions within their respective purview in a timely manner.

40. Ms Elizabeth QUAT considered the current level of penalties imposable against illegal deposition of C&D waste too low to achieve any deterrent effect. For instance, a total fine of \$41,000 only was imposed on the defendants of seven prosecution cases convicted in April 2021 (paragraph 15 of the Administration's paper (LC Paper No. CB(1)1338/20-21(03))). She suggested the Administration review the relevant regulations with a view to imposing heavier penalties against illegal deposition of C&D waste and landfilling.

41. DDEP(1) responded that persons committing offences in relation to illegal deposition of C&D waste and landfilling, including drivers of the vehicles engaged in such activities, would be liable to prosecution under the relevant legislations. As observed, there were significant improvements at some black spots in Yuen Long and the North District in recent years, demonstrating the effectiveness of the current penalty in deterring such activities.

Air monitoring network

42. Ms Elizabeth QUAT enquired about the application of innovative technologies for monitoring air quality and providing relevant information for the public's reference. USEN advised that EPD had been working with the Hong Kong University of Science and Technology ("HKUST") to develop micro air monitoring equipment, and planned to install the equipment at more locations in the future with a view to further expanding the air monitoring network. EPD and

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HKUST had also devised a mathematical model to predict the levels of air pollutants, with a view to providing more comprehensive air quality data to the public as appropriate.

Emissions from petrol and liquefied petroleum gas vehicles

43. Referring to paragraph 10 of the Administration's paper, Mr Tony TSE enquired whether the considerable reduction in the ratio of excessively emitting petrol and liquefied petroleum gas ("LPG") vehicles in the past decade was mainly attributable to rectification of excessive emissions required by Emission Testing Notices ("ETNs") served on owners of vehicles screened by mobile remote sensing devices at roadsides; and whether the high cost of replacing the relevant vehicle parts might deter some owners from taking initiative to reduce emissions from their vehicles on a voluntary basis.

44. USEN advised that petrol and LPG vehicles relied on their catalytic converters to reduce emissions, which would be worn out over use and needed to be replaced from time to time. Unlike smoke from diesel vehicles, emissions from petrol and LPG vehicles were invisible and could only be detected using roadside remote sensing devices. Specific individual gross emitters could be accurately identified by using such devices without stopping the vehicles running on roads. EPD would issue ETNs to the owners concerned, requiring the vehicles to be repaired and pass an emission test using a chassis dynamometer within 12 working days. For those failing to comply with the emission test requirement, EPD would inform the Transport Department to cancel the licence of the vehicles concerned.

Water pollution and odour problem at harbourfront areas

45. Ms Elizabeth QUAT enquired about the use of innovative technologies such as Remote Robot to tackle water pollution (e.g. pollution of the Shing Mun River) by tracking the pollution sources.

46. Mr Michael TIEN was of the view that the odour problem at the Tsuen Wan Waterfront was mainly caused by emissions of volatile organic compounds ("VOCs"). He asked about the characteristics of VOCs in waters and whether the deployment of gas chromatograph with flame-ionization detector for monitoring VOCs content in real time would be conducive to tackling odour problem given rise by high VOCs concentration.

47. PEPO(AS) advised that due to the large size of gas chromatographs, they were not suitable to be placed outdoor. EPD planned to deploy a gas chromatograph at the Tsuen Wan Monitoring Station in 2022 to carry out real-time monitoring of VOCs concentration in the district. As VOCs content varied

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with the composition of sewage, canisters could be placed at drain outlets near the Tsuen Wan Waterfront to collect samples for VOCs speciation analysis.

V. Any other business

48. There being no other business, the meeting ended at 4:16 pm.

Council Business Division 1
Legislative Council Secretariat
12 November 2021