

**立法會**  
**Legislative Council**

LC Paper No. CB(1)656/2023

Ref : CB1/PS/2/22

**Report of the Subcommittee to Study Policy Issues Relating to  
Municipal Solid Waste Charging, Recovery and Recycling  
for submission to the Panel on Environmental Affairs**

**Purpose**

This paper reports on the work of the Subcommittee to Study Policy Issues Relating to Municipal Solid Waste Charging, Recovery and Recycling (“the Subcommittee”).

**Background**

Waste Blueprint for Hong Kong 2035

2. In February 2021, the Environment Bureau (“ENB”) announced the Waste Blueprint for Hong Kong 2035 (“Waste Blueprint 2035”),<sup>1</sup> which sets out the vision of “Waste Reduction • Resources Circulation • Zero Landfill” and outlines the strategies, goals and measures to tackle the challenge of waste management up to 2035. Under the vision, the Administration works with the recycling industry and the community to move towards two main goals:

- (a) *medium-term goal* - to gradually reduce the per capita disposal rate of municipal solid waste (“MSW”) by 40-45% and raise the recovery rate to about 55% by implementing MSW charging; and
- (b) *long-term goal* - to move away from the reliance on landfills for direct waste disposal by developing adequate waste-to-energy (“WtE”) facilities.

3. To achieve the above goals, the Administration will promote six major areas of action, namely waste reduction, waste separation, resources circulation, industry support, innovation and cooperation, and education and publicity,

---

<sup>1</sup> The Environment Bureau was subsequently renamed as “Environment and Ecology Bureau” after the reorganization of government structure with effect from 1 July 2022.

leading the advancement of various policies and measures as well as building a circular economy and a sustainable green living environment.

### Municipal solid waste charging

4. The Waste Disposal (Charging for Municipal Solid Waste) (Amendment) Bill 2018 (“the Bill”), which sought to establish an MSW charging scheme, was passed at the Council meeting of 25 August 2021 and enacted as the Waste Disposal (Charging for Municipal Solid Waste) (Amendment) Ordinance 2021 (“Amendment Ordinance”). The Ordinance is to come into operation on a day to be appointed by the Secretary for Environment and Ecology by notice published in the Gazette.

5. Under the MSW charging scheme, MSW charges are to be levied through the dual modes of (a) charging through purchasing and using designated bags (“DBs”) or designated labels (“DLs”) and (b) charging by weight-based “gate-fee”. The charging mode applicable to a waste producer will depend on the waste collection service used by the producer. MSW that is neither wrapped in a DB nor affixed with a DL and disposed of at specified locations will be regarded as non-compliant waste.

### **Subcommittee to Study Policy Issues Relating to Municipal Solid Waste Charging, Recovery and Recycling**

6. To enable more focused discussion on the Administration’s preparatory work for MSW charging, EA Panel decided at its meeting on 10 February 2022 to set up a subcommittee to study policy issues relating to MSW charging, recovery and recycling. The terms of reference and membership of the Subcommittee are given in **Appendices 1 and 2** respectively.

7. Under the chairmanship of Hon KWOK Wai-keung, the Subcommittee has held seven meetings, including five meetings to exchange views with the Administration.<sup>2</sup>

8. The Subcommittee has also conducted two local visits to waste management facilities including GREEN@TUEN MUN (one of the Recycling Stations of the community recycling network “GREEN@COMMUNITY), Y•PARK (a yard waste recycling centre), T•PARK (a sludge treatment facility), O•PARK1 and O•PARK2 (Organic Resource Recovery Centre Phase 1 and Phase 2) to understand the Administration’s latest progress of work in promoting WtE and waste-to-resources (“WtR”) transformation as well as community participation in resource recovery.

---

<sup>2</sup> The other two meetings dealt with in-house business such as election of chairman and deputy chairman, and consideration of the way forward of the Subcommittee.

## **Deliberations of the Subcommittee**

9. The Subcommittee has studied the following major issues and the respective meeting dates are in **Appendix 3**:

- (a) preparatory work for the implementation of MSW charging;
- (b) central collection services for major recyclables and community recycling network;
- (c) development of WtE/WtR infrastructure; and
- (d) producer responsibility schemes (“PRs”).

10. Details of the Subcommittee’s deliberations and recommendations are set out in the ensuing paragraphs.

### Municipal solid waste charging

11. It is the Administration’s plan to put in place a period of at least 18 months from the passage of the Bill to prepare for implementation of MSW charging. During the preparatory period, the Administration will pay close attention to various aspects of the community, particularly the progress of economic recovery after the COVID-19 pandemic, and the level of preparation among different stakeholders. The Administration’s current target is to implement MSW charging at the end of 2023. It will consult the Panel on Environmental Affairs (“EA Panel”) on the commencement date of the relevant legislations when appropriate.

12. The Administration reported the progress of its preparatory work for implementation of MSW charging at the meetings of the Subcommittee on 6 June 2022 and 31 January 2023. Such work includes, among other things, establishment of a Manufacturing, Inventory and Distribution System and a retail network for the supply of DBs and DLs; communication with various stakeholders (such as property management companies, frontline cleansing workers, waste collectors) to formulate relevant guidelines and provide support to them; as well as launching extensive public education and publicity campaigns on waste reduction and recycling.

13. Given that the mode of “charging by DBs/DLs” is applicable to most residential buildings, commercial and industrial (“C&I”) buildings, village houses, street level shops and institutional premises, the Subcommittee has requested the Administration to explain more to the public about the charging mechanism, progress of preparatory work and enforcement approach. The Administration should also provide assistance for low-income households to help

mitigate the financial impact of MSW charging on them.

14. The Administration has advised that it will carry out extensive public education and publicity activities through the Environmental Campaign Committee in order to deepen the knowledge of the general public on MSW charging; advocate behavioral change to reduce waste generation at source; and remind citizens to comply with relevant legislative requirements. Under the theme of “Recycle More, Dump Less, Save More”, the campaign will be carried out by phases starting from the second quarter of 2023 for a period of about 10 months.<sup>3</sup>

15. The Administration reckons that members of the public may require time to adapt and change their waste disposal habits progressively. In this connection, the Administration will put in place a phasing-in period in the first six months after the implementation of MSW charging, with advice and warnings to substitute enforcement actions during the period. To strengthen public education and assist the public to adapt to the new regulation of using DBs for waste disposal, the Administration will distribute free DBs to residential households during the initial stage of implementation of MSW charging and encourage them to proactively practise waste reduction at source and clean recycling, with a view to minimizing the payable MSW charges and achieving “Dump Less, Save More”. The Administration will draw up the distribution proposal with due regard to, among other things, prudent use of public resources, and households that may require more support to adapt to MSW charging (such as residents of “three-nil” buildings and public rental housing (“PRH”) estates).

16. The Administration concurs that while the responsibility to reduce waste should be shared by the whole community, the need of people with financial hardship should be addressed. The Administration intends to provide financial assistance for the recipients of the Comprehensive Social Security Assistance (“CSSA”) Scheme (currently over 60% of CSSA recipients are living in PRH estates). Making reference to the estimated average spending of a three-member household in waste disposal (i.e. around \$33 per month or around \$10 per person per month if a 10-litre DB is used daily), the Administration plans to increase the CSSA standard rates by \$10 per person per month for all CSSA recipients upon the implementation of MSW charging.

### *Recommendations*

17. To ensure a smooth implementation of MSW charging, the Subcommittee has called on the Administration to:

---

<sup>3</sup> The plan and progress of public education and publicity for MSW charging are reported in paragraphs 21 to 22 of the paper provided by the Administration for the Subcommittee meeting of 31 January 2023 (LC Paper No. [CB\(1\)45/2023\(01\)](#)).

- (a) learn from the experience in MSW charging-related trial projects and community involvement projects (“CIPs”) and follow up as appropriate the feedback gauged from the project participants;
- (b) assess, in relation to different types of premises (residential buildings in rural areas and three-nil buildings in particular), the readiness of relevant stakeholders including residents, property management companies and cleansing contractors, etc. for the implementation of MSW charging; and
- (c) strengthen public confidence in waste reduction and recycling initiatives by ensuring that recyclables collected through the community recycling network and other government initiatives will be recycled, and not end up being disposed of at landfills.

### Designated bags and designated labels

#### *Manufacturing, inventory and distribution*

18. The Administration conducted an open tender exercise in June 2022 for the five contracts with regard to the manufacturing of DBs. However, the tender prices of all conforming tenders that can fully comply with the technical requirements are much higher than expected. In order to utilize public financial resources prudently, the Administration has decided to cancel this tender exercise and re-examine the specifications of DBs and the terms of tender documents, with a view to reducing costs for the production of DBs.

19. To confine the tender price to the original estimate while not impairing the quality of DBs, it is the Administration’s plan to allow the production process be conducted outside the territory of Hong Kong, and changing the thickness and material requirements of DBs (i.e. using high-density polyethylene (“HDPE”) instead of low-density polyethylene (“LDPE”) in the production of 3 litres to 75 litres DBs and reducing the proportion of recycled plastic materials from the original 50% to not less than 20%) for reducing the amount of material consumption and cost. The contract period will also be shortened from the original five years to three years to reduce the contractors’ risks associated with long-term operation (such as price fluctuations for raw materials, inflation and other uncertain factors); and the price ratio in tender assessment will be increased to promote competition.<sup>4</sup>

---

<sup>4</sup> For details of the Administration’s progress in establishing the Manufacturing, Inventory and Distribution System of DBs and DLs, please refer to paragraphs 4 to 7 of the paper provided by the Administration for the Subcommittee meeting of 31 January 2023 (LC Paper No. [CB\(1\)45/2023\(01\)](#)).

20. The Subcommittee has suggested the Administration devise fall-back plans in case the tender prices for the manufacturing contracts remain much higher than expected after re-tendering. Besides, reference should be drawn from the relevant experience of other cities as to whether using HDPE for DBs will impair their durability, and whether reduction in the proportion of recycled plastic materials will give rise to undue environmental impact. The Administration should carefully assess the bidders' capability of producing/supplying sufficient DBs to meet the demand throughout the contract period, and the potential impact of the shortened contract period as well as production outside the territory of Hong Kong on the supply of DBs.

21. The Administration has advised that it has drawn reference from the experience of other places in the use of HDPE for producing plastic bags. Although the high-density physical property of HDPE will reduce the ductility of DBs, the relevant DBs quality test data has indicated that the use of HDPE in lieu of LDPE in the production of 3 litres to 75 litres DBs yields the same loading capacity. Moreover, the use of HDPE will also reduce the plastic material cost of DBs. In view of the unstable supply and quality of recycled plastic materials and their volatile prices, changing the proportion of recycled plastic materials in the production of DBs from the original 50% to not less than 20% can provide the contractors with greater flexibility in controlling the production costs. To encourage contractors to adopt a higher proportion of recycled plastic materials, a criterion related to the use of recycled plastic materials will be added in the marking scheme for tender assessment.

22. The Administration opines that large-scale plastic bag manufacturing plants outside the territory of Hong Kong with existing production lines and sufficient storage space for work-in-progress materials or final products will better ensure speedy manufacturing and supply of DBs. With the production process allowed to be conducted outside the territory of Hong Kong and the proportion of recycled plastic materials of DBs lowered, it is expected that the tender prices can be confined to the original estimate. The Administration will include an option to extend the three-year contract by one year in the contract.

#### *Retail network*

23. The Subcommittee has exchanged views with the Administration on the establishment of retail outlets for the sales of DBs and DLs. Members have enquired whether sale/purchase of DBs and DLs at retail outlets other than those designated by the Government, and re-sale of DBs/DLs purchased from designated retail outlets, will constitute any offence. Noting that 240-litre and 660 litre DBs will only be sold for use by buildings with chutes, the Subcommittee has also enquired about the rationale behind.

24. The Administration has advised that it will establish a retail network comprising few thousands of retail outlets covering supermarkets, convenience stores, pharmacies, houseware stores and online platforms, etc. To further expand the retail network, the Administration is exploring with property management companies the feasibility of selling DBs and DLs at their private housing estates. In addition, the Administration will also explore with relevant government departments, Hong Kong Housing Authority and Hong Kong Housing Society the installation of vending machines at appropriate premises for the sales of DBs and DLs. To further promote waste reduction and reuse of resources, the Administration has invited the retail sector to actively consider the sales of DBs in lieu of the plastic shopping bags currently sold, so as to achieve the effect of “one bag for dual-use”.<sup>5</sup>

25. The Administration points out that the Director of Environmental Protection (“DEP”) may authorize any person to, among others, sell DBs or DLs, and sale of DBs/DLs by unauthorized person or sale at other than their prescribed prices is prohibited. If a retail outlet wishes to sell DBs/DLs, it may seek DEP’s authorization. As regards 240-litre and 660-litre DBs, they are supplied to the property management or environmental hygiene trades outside the retail network. As discussed with these trades, such DBs are intended to be used by buildings with chutes.

26. The Administration has further advised that it will develop a Smart Inventory Management System (“the SIM System”) and relevant mobile application to help monitor the delivery of DBs and DLs from manufacturers to major retail outlets and manage the stock levels of DBs and DLs. Retailers can place order, monitor inventory levels and their monthly sales status conveniently through the SIM System.

#### *Anti-counterfeit features*

27. The Subcommittee has sought elaboration on the anti-counterfeit and environmental features of DBs and DLs, and enforcement against counterfeit DBs/DLs.

28. The Administration has advised that:

- (a) each DB/DL will come with anti-counterfeit features to deter forgery. DB/DL will be sold at authorized retail outlets only, with an authorization logo displayed at such outlets to facilitate identification by the public. Publicity will be conducted to increase public awareness of the authorized retail outlets and counterfeit

---

<sup>5</sup> Details of the Administration’s plan to establish the retail network for DBs and DLs are given in paragraphs 8 to 13 of the paper provided by the Administration for the Subcommittee meeting of 31 January 2023 (LC Paper No. [CB\(1\)45/2023\(01\)](#)).

features of DBs/DLs. The SIM System will be equipped with a search function to facilitate the public to instantly locate nearby retail outlets of DBs;

- (b) other than strengthening the monitoring of DBs production and transportation processes, the Administration will also adopt the following stringent measures to combat and prevent counterfeit products from entering the market: (i) setting up freight tracking system for the cross-border transportation of DBs to obtain real-time shipment information; (ii) changing the combination of anti-counterfeit features regularly to increase the production cost of counterfeit products; and (iii) only permitting authorized retailers to sell DBs and DLs, and explicitly publicizing the “authentic goods” sales channels to the public. The Administration will also work with relevant law enforcement departments to closely monitor the sales of DBs and DLs through different means, and take enforcement actions against infringement under the Trade Descriptions Ordinance (Cap. 362) or the Copyright Ordinance (Cap. 528); and
- (c) enforcement will be taken to follow up intelligence and information received from other departments or members of the public. Publicity will also be stepped up to educate the public with a view to enhancing compliance with MSW charging arrangements, including the use of DBs/DLs for MSW disposal.

#### *Implementation of dual-use bags*

29. The Subcommittee supports dual use of DBs and has sought the details of implementation, including whether there is any transitional arrangement for replacing plastic shopping bags by DBs, and the sizes of DBs for sale as plastic shopping bags.

30. The Administration has advised that it is common for members of the public to use plastic shopping bags or other plastic bags as garbage bags. The Administration is now inviting the retail sector to actively consider selling DBs in lieu of plastic shopping bags as provided under the Plastic Shopping Bag Charging Scheme at the cashier after the implementation of MSW charging, so as to achieve the effect of “dual use bags” and further promote re-use and waste reduction. According to the Administration, the retail chains are generally supportive. The charge of each DB to be sold at designated retail outlets in lieu of plastic shopping bags will follow the MSW charging level of the respective size of DBs. The Administration will further discuss with the retail sector on the size(s) of DBs to be sold in lieu of plastic shopping bags, including whether only certain size(s) of DBs (e.g. 10-litre DB and/or 15-litre DB) will be sold for such purpose. Currently, the charging level of a 10-litre DB (\$1.1) is



comparable to the new charge of \$1 per plastic shopping bag. It is envisaged that the financial impact arising from the charging differential on retail customers is minimal. Separately, certain exemptions for PSBs have been removed with a view to minimizing the use of PSBs as far as possible.

### *Recommendations*

31. In relation to the manufacturing, inventory and distribution of DBs and DLs, the Subcommittee recommends that the Administration should:

- (a) raise the recycled plastics content of DBs as high as possible;
- (b) carefully assess the bidders' capability and related contractual arrangements to ensure a stable supply of DBs and DLs;
- (c) review in the longer run the feasibility of producing DBs locally, with a view to generating local employment opportunities;
- (d) exercise flexibility to allow the use of 240-litre and 660-litre DBs by buildings without chutes;
- (e) broaden the retail network for the sales of DBs to cover as many retail outlets as possible;
- (f) continue garnering more support from the retail sector to sell DBs in lieu of plastic shopping bags;
- (g) confine the size of DBs to be sold at retail outlets to certain sizes so as to minimize the charging differential between DBs and plastic shopping bags; and
- (h) heighten public awareness of the prohibitions in relation to the sale and pricing of DBs/DLs.

### Stakeholder engagement, trial projects and community involvement projects related to municipal solid waste charging

32. The Subcommittee has received updates on the Administration's progress of enhancing stakeholder engagement and way forward. According to the Administration, it has been organizing operational briefings and specialized trainings for stakeholders from various sectors. As of December 2022, it has conducted more than 120 physical or online meetings and briefings, reaching out to about 4 600 stakeholders from various trade sectors to introduce to them the latest development of MSW charging and listen to their concerns. The Administration is also continuously preparing Best Practice Guides jointly with

working groups comprising stakeholders from property management, environmental hygiene, recycling and security trades.

33. The Administration has advised that the Environmental Protection Department (“EPD”) has partnered with some 20 relevant government departments and organizations to launch trial projects on MSW charging in different sectors (including PRH estates, rural villages, shopping malls, catering trade and government premises) since 2018, for participants to get first-hand experience of the quantity-based charging arrangements. In addition, since 2015, EPD has launched CIPs funded by the Environment and Conservation Fund (“ECF”). These projects allow non-profit making organizations and bodies to try out MSW charging in different types of premises (including “three-nil” buildings, C&I premises, single-block buildings, public institutions, residential estates with property management companies, rural and other low-density residential buildings). To encourage more non-profit organizations and bodies to apply for and implement projects at “three-nil” buildings, priority has been given to those applications involving “three-nil buildings” in the latest round of applications, whilst EPD has provided additional support through GREEN@COMMUNITY.

34. The Administration has further advised that EPD provides dummy DBs (“dummy bags”) of different capacities for participants of trial projects and CIPs to try out, and calculates a mock charge based on the capacities and quantities of dummy bags requested by participants to allow them to get first-hand experience of “Dump Less, Save More” in real settings. Various publicity and public education activities are also organized to enrich participants’ understanding of the objectives of MSW charging and its implementation arrangements, and to promote valuing resources and reducing waste by encouraging them to practise proper waste separation, waste reduction at source and clean recycling.

35. The Subcommittee has noted that the trial projects and CIPs have covered about 2 200 premises, including some 900 which are underway or to be commenced in 2023 (as at January 2023). Given the trial projects and CIPs have extensively covered 18 districts in Hong Kong and different types of premises and also effectively achieved their objectives, the Administration will cease the distribution of dummy bags as well as wrap up all trial projects and CIPs before the fourth quarter of 2023, in order to avoid unnecessary confusion to the public for using authentic DBs and dummy bags upon the implementation of MSW charging. The focus of work will then be shifted to promoting the Best Practice Guides to the stakeholders of different sectors and provide training to relevant frontline staff.

### *Recommendations*

36. In relation to the trial projects and CIPs related to MSW charging, the Subcommittee recommends that the Administration should:

- (a) provide financial incentives to better engage the public in waste reduction and recovery in order to achieve “Dump Less, Save More”; and
- (b) broaden the coverage of trial projects and CIPs, such as by leveraging the network and expertise of community groups, so as to allow more members of the public (in particular those residing in “three-nil” buildings) and the relevant trades to get first-hand experience of the charging arrangement before the actual implementation.

### Enforcement of municipal solid waste charging

37. The Subcommittee has expressed concern about potential aggravation of fly-tipping after implementation of MSW charging. There are also concerns from the property management and environmental hygiene trades about the support for enforcement of MSW charging in multi-storey private buildings, “three-nil” buildings and PRHs, given the potential difficulty to identify non-compliant households in these premises. The Subcommittee has asked about the handling of non-compliant waste deposited at litter containers put in public places and managed by EPD, and whether the Administration will reduce the number of litter containers in public places to deter such abusive use.

38. The Administration has explained that:

- (a) enforcement actions will be taken by EPD for non-compliant waste disposed of at specified locations including common areas at multi-storey private buildings and PRHs. Property management companies and cleansing workers are not expected to take punitive actions against non-compliant households. Where non-compliant waste is found, private management companies or relevant persons may send reports/complaints to EPD and provide information as appropriate;
- (b) members of the public may make use of the SIM System-related mobile application, coupled with the Global Positioning System of their mobile phones, to take pictures of MSW charging related non-compliant cases and immediately upload such cases to the complaint platform;

- (c) the six-month phasing-in period after the implementation of MSW charging will allow the community to get accustomed to the charging requirements in the initial period. After the phasing-in period, strict enforcement actions will be taken under a risk-based approach, with particular attention given to black spots;
- (d) while the locations specified under the Amendment Ordinance for the purpose of enforcement against depositing of non-compliant waste in relation to MSW charging do not cover litter containers placed in public places, depositing of waste at the side or on top of a litter container may constitute an offence under relevant existing legislation including the Fixed Penalty (Public Cleanliness and Obstruction) Ordinance (Cap. 570). In this connection, EPD will liaise with FEHD to step up inspection in the vicinity of litter containers in public places;
- (e) in preparation for implementation of MSW charging, the number of litter containers in public places has been progressively reduced while the recycling bin to litter container ratio has been enhanced in the past few years;
- (f) the Administration will continue to step up efforts to handle junk and refuse in rear lanes, strengthen cleansing work, and institute prosecutions against breaches of cleansing legislation. Some of the CIPs provide supporting facilities and measures targeting at “three-nil” buildings. These measures may include one-off cleanup operation at rooftops and installation of closed-circuit television surveillance system in common areas (e.g. rooftops, patios and staircases);
- (g) while the pictures and other information collected from the complaint platform from SIM System-related mobile application or other sources may not be sufficient for initiating prosecution, they provide intelligence for identifying black spots of non-compliant cases, which is useful for enhancing enforcement strategy; and
- (h) experiences in Seoul and Taipei show that aggravation of fly-tipping may occur during the initial launch of MSW charging but the situation is expected to improve over time along with increasing public awareness of and adaptation to the charging arrangements as well as waste recovery and recycling. In this connection, the Administration will step up publicity and education through various channels.

### *Recommendations*

39. To address concerns about potential aggravation of fly-tipping after implementation of MSW charging, and enhance support to relevant trades during the implementation, the Subcommittee calls on the Administration to:

- (a) ensure that the guidelines for key stakeholders including representatives from the property management, environmental hygiene, recycling and security trades, are clear and effective to facilitate implementation of MSW charging and address the trades' concerns about handling of non-compliant situations;
- (b) closely monitor the situation of fly-tipping, in particular the problem of junk and refuse accumulation at rear lanes, rooftops, patios and staircases of "three-nil" buildings, and abusive use of litter containers for depositing of MSW;
- (c) implement relevant measures or provide resources that will help improve the environmental hygiene conditions of "three-nil" buildings in connection with urban renewal and building management initiatives; and
- (d) devise effective strategy in evidence collection, by leveraging smart technologies as appropriate, to bring about successful prosecution, which is crucial to demonstrating the enforceability of the MSW charging arrangements and hence deterring fly-tipping after implementation of MSW charging.

### Central collection services for major recyclables and community recycling network

40. On 12 July 2022, the Subcommittee received briefing by the Administration on the central collection services for major recyclables and community recycling network.<sup>6</sup> The Administration further reported to the Subcommittee on 31 January 2023 the progress of work on the implementation or introduction of various PRSs.<sup>7</sup> The Subcommittee stresses the need to put in place sufficient recycling services and facilities, including those in rural areas, to

---

<sup>6</sup> For details of the Administration's progress of work in the implementation of central collection services for major recyclables and expanding the community recycling network, please refer to the paper provided by the Administration for the Subcommittee meeting of 12 July 2022 (LC Paper No. [CB\(1\)438/2022\(01\)](#)).

<sup>7</sup> For details of the Administration's progress of work on the implementation or introduction of various PRSs, please refer to the paper provided by the Administration for the Subcommittee meeting of 31 January 2023 (LC Paper No. [CB\(1\)45/2023\(02\)](#)).

complement the implementation of MSW charging. This will be crucial to restoring public confidence in the effectiveness of the recycling arrangements, and mobilizing members of the public to practise waste reduction and recycling. The Administration is also requested to consider sorting MSW to recover recyclables disposed of at refuse collection facilities.

41. The Administration has explained that to achieve the vision of “Waste Reduction • Resources Circulation • Zero Landfill” set out in the Waste Blueprint 2035, and to complement MSW charging, it is necessary to promote local waste recycling as an integral part of the waste management strategy in Hong Kong. Certain recyclables such as ferrous metals and non-ferrous metals have been having high demand in the market, therefore their recycling operations in Hong Kong are primarily run by the private markets. However, regarding other recyclables which are of low market value (e.g. waste plastics), affected by factors such as the difficulties in the operation of the recycling market (e.g. the high costs of collecting small amounts of waste plastics and food waste from widely distributed spots), the downturn in the external recycling market causing the decline in prices in the international market, the tightening-up of import control by different places, it is difficult for recycling to be conducted continuously and extensively by solely relying on private-sector operations. Therefore, the Administration has taken the initiative to play a proactive role by progressively introducing a number of measures, such as providing central collection services targeted at major recyclables and expanding the community recycling network, with a view to enhancing the recycling performances.

42. The Administration points out that since waste paper, waste plastics, and food waste account for 70% of MSW disposed of daily in Hong Kong, and they face the difficulty in the operation of the recycling market as mentioned above, the Administration focuses resources to progressively roll out collection services targeted at these three major recyclables, with a view to strengthening the supporting recycling network, providing stable collection service and enhance the local capability of transforming waste into resources/energy, thereby laying the foundation for the progressive development of a circular economy. In addition, the Administration has been expanding and enhancing GREEN@COMMUNITY, so as to strengthen waste reduction and recycling support at community level. Outreaching service is also provided on waste reduction and recycling to local stakeholders through the Green Outreach.

43. As regards sorting of recyclables, the Administration has advised that there are recycling technologies in the market that seek to simplify the recycling process of recyclables which have been separated at source. Optical technology, for example, has been widely adopted in the recycling industry to improve the yield and sorting efficiency of waste plastics, and sorting of waste plastics using optical technology is under trial by a tenant of EcoPark. As there has been an established and detailed categorization of various types of recyclables in Hong

Kong, it is considered more cost-effective and sustainable to drive and facilitate waste separation and clean recycling at source by the waste producers, instead of relying on sorting of recyclables at downstream of the recycling chain.

*Food waste*

44. Some members are worried whether the scale and capability of the central collection services being provided or under planning can facilitate the public to separate and recover food waste at source as far as practicable for recycling, and hence reduce disposal of such waste at landfills.

45. The Administration has advised that it has launched a number of initiatives to collect food waste, including:

- (a) the Pilot Scheme on Food Waste Collection - which covers relatively clustered premises that generate larger quantities of food waste with less impurities in various districts in Hong Kong, including public premises (e.g. shopping centres of PRH estates, cooked food centres and public markets, catering facilities of social service organizations, canteens in tertiary institutions and hospitals) and private C&I premises (e.g. food factories, hotels, large shopping malls and airline caterers);
- (b) a trial scheme for collecting food waste using smart recycling bins in PRH estates;
- (c) a scheme under the Recycling Fund on “Supporting Residential Buildings in Adopting Smart Bins Technology in Food Waste” to subsidize the use of smart recycling bins at private residential buildings to encourage and promote the recycling efficiency of domestic food waste;
- (d) subsidizing large-scale food waste recycling projects at private housing estates using smart recycling bins through the Industry Support Programme of the Recycling Fund; and
- (e) trial at refuse collection points of the Food and Environmental Hygiene Department to collect food waste from street-level restaurants nearby.

46. The Administration has explained that as the sources of domestic food waste are scattered in residential buildings across the territory, the Administration has to work out a cost-effective approach to collect domestic food waste before introducing related central collection services. It is envisaged that after commencement of the Food Waste/Sewage Sludge Anaerobic Co-digestion Trial

Scheme at the Sha Tin Sewage Treatment Works (“STW”) and O • PARK2 (Organic Resources Recovery Centre Phase 2) has come into service, the total treatment capacity will be increased to 600 tonnes of food waste daily, and the Administration will consider collecting food waste from more PRH estates.

47. The Subcommittee suggests that the Administration should compile and maintain statistics on central collection of food waste generated from the private (C&I sector) and public premises, as such statistics will serve as useful reference for the Administration to estimate reduction in food waste, assess the effectiveness of food waste reduction measures and consider whether to impose a service charge in future.

48. The Administration has advised that the contractors of the central collection services keep statistics about the food waste collected and processed by the food waste treatment facilities managed by EPD. To encourage recycling of food waste, the contractors will provide information about the carbon credit on the amount of food waste collected from the premises.

#### *Waste plastics*

49. Members opine that excessive packaging will increase disposal of MSW and make it difficult for the community to achieve “Dump Less, Save More”. Besides, redemption of used packaging materials for GREEN\$ might in effect encourage waste generation and excessive packaging.

50. The Administration has advised that the Council on Sustainable Development (“SDC”) submitted recommendations to the Government in April 2022 on the types of single-use plastic products (excluding plastic beverage containers and disposable tableware provided by catering premises) to be tackled, the priority, the approach for managing them (such as voluntary measures or regulation) and the timeline. Amongst other recommendations, SDC recommended the Government to implement suitable control measures based on the characteristics of different single-use plastic products. SDC also recommended that the Government should, in consultation with the relevant trades, explore administrative and legislative measures to reduce the use of plastic (especially polyfoam) packaging. The Administration is following up this recommendation and discussing with the relevant trades.

#### *Recommendations*

51. In relation to the central collection services for major recyclables and the community recycling network, the Subcommittee urges the Administration to:



*Coverage of services and network*

- (a) put in place sufficient waste separation, recovery and recycling facilities for treatment of recyclables (food waste in particular), which will in turn help boost public confidence and participation in the Government's relevant initiatives;
- (b) expand the coverage of central collection services for recyclables to complement the implementation of MSW charging timely. For instance, the current trial projects for collecting food waste using smart recycling bins should be implemented at more private and public housing estates where practicable;
- (c) enhance public awareness of the recycling facilities at different levels of the network, with a view to increasing the patronage and recyclable quantity of these facilities;
- (d) continue enhancing the design of refuse collection points (RCPs) to incorporate waste recovery and recycling functions and if possible, allocate space in new RCPs for setting up Recycling Stores;
- (e) consider including DBs as gifts redeemable with GREEN\$ by the public when carrying out recycling in the facilities of the community recycling network;
- (f) draw experience from the "Waste Separation Projects to Pave the Path for Municipal Solid Waste Charging" and deploy resources to appoint non-profit making organizations to proactively take forward such projects for "three-nil" buildings (instead of passively relying on non-profit making organizations to apply for ECF to implement the projects);
- (g) enhance education about environmental protection and develop related educational materials, with a view to nurturing a culture of waste reduction and recycling among students and their household members;

*Measures related to specific type of waste*

- (h) request the relevant trades (including operators of online shopping platforms and courier services) to proactively reduce the use of plastic packaging materials; and impose control on excessive packaging and draw up specific plans in this regard for early consultation with the relevant stakeholders;

- (i) expedite discussion with the Mainland and relevant trades for working out a long-term solution for management of styrofoam boxes;
- (j) formulate a clear plan to meet the target of handling about 1 500 tonnes of food waste per day by mid-2030s (i.e. about half the amount of food waste landfilled each day);
- (k) expand the scope of regulated electrical equipment under the Producer Responsibility Scheme on Waste Electrical and Electronic Equipment to cover small items of electronic products which are gaining popularity in Hong Kong, such as electronic game devices. To reduce the disposal of waste electrical and electronic equipment, the Administration should also consider how to help needy families in the repair of their electrical appliances;
- (l) expedite introduction of more PRSs for end-of-life products, in particular waste plastic beverage containers, beverage cartons and waste batteries of electric vehicles;
- (m) increase the local yard waste handling capacity, such as by collaborating with the industry and organizations capable of handling yard waste (e.g. sawmills and Hong Kong Disneyland);

#### *Local recycling industry*

- (n) encourage private recyclers to seek local outlets for recyclables instead of reselling them to places outside Hong Kong. Measures should also be put in place to assist local recyclers in the collection and recovery of recyclables; and
- (o) in light of the incident of a contractor failing to deliver waste beverage cartons collected from GREEN@KWUN TONG to the designated downstream recycler, review the relevant monitoring system for making improvement as appropriate and necessary.

#### Development of waste-to-energy/resources infrastructure

52. The Administration has reported the development of WtE/WtR infrastructure at the meetings held on 8 November 2022 and 8 May 2023.<sup>8</sup> The Administration has been driving the development of downstream WtE/WtR infrastructure over the past ten years, so as to establish a more comprehensive

---

<sup>8</sup> For details of the development of WtE/WtR infrastructure, please refer to the papers provided by the Administration for the meetings on 8 November 2022 and 8 May 2023 (LC Paper Nos. [CB\(1\)722/2022\(01\)](#) and [CB\(1\)416/2023\(01\)](#)).

waste treatment chain and facilitate the transformation of waste into resources, thereby laying the foundation of the development of a circular economy. These facilities include:

- (a) *T•PARK*: Commissioned in 2015, *T•PARK* adopts advanced incineration technology to treat up to 2 000 tonnes of sewage sludge from STWs each day;
- (b) *WEEE •PARK*: Commenced full operation in March 2018, with a design capacity of 30 000 tonnes of regulated waste electrical and electronic equipment annually, to underpin the implementation of the Producer Responsibility Scheme on Waste Electrical and Electronic Equipment;
- (c) *O•PARK1* (Organic Resources Recovery Centre Phase 1): Commenced operation in 2018, *O•PARK1* adopts anaerobic digestion technology that can convert 200 tonnes of food waste into electricity each day;
- (d) *Y•PARK*: Commenced operation in 2021, with a handling capacity of around 11 000 tonnes of yard waste in the first year (i.e. 30 tonnes per day), which will be gradually increased to an annual average of around 22 000 tonnes (i.e. 60 tonnes per day). The yard waste collected will be screened, sorted and treated for transforming into various useful materials. Some wood materials will be provided to relevant industries to support their operations;
- (e) *O • PARK2* (Organic Resources Recovery Centre Phase 2): Commenced construction and scheduled to commence operation in 2024, *O•PARK2* can convert 300 tonnes of food waste into electricity each day; and
- (f) *I • PARK1* (modern WtE incinerator): Currently under construction, *I • PARK1* will commence operation in 2025 to provide a daily treatment capacity of 3 000 tonnes of MSW.

53. The Subcommittee has expressed concern about:

- (a) the Administration's slow progress in taking forward modern WtE incinerators and food waste treatment facilities; and
- (b) how the Administration can equip Hong Kong with adequate capacity by mid-2023s to meet its target of treating around 1 500 tonnes of food waste per day (i.e. about half the amount of food waste landfilled each day), given that *O•PARK1* and *O•PARK2*

together can only treat up to 500 tonnes of food waste daily.

54. The Administration has advised that the investigation and design study for the development of I • PARK2 would commence by end 2022. To shorten the project timeframe, the Administration will carry out the environmental impact assessment and various tasks of pre-construction works in parallel. While the current target is to commence the operation of I • PARK2 in early 2030s, the Administration will liaise with the relevant trades and contractors to explore viable measures for expediting the construction of I • PARK2. The Administration will explore the feasibility to increase the MSW daily treatment capacity of I • PARK2 as far as practicable taking into account that the maximum land footprint available at I • PARK2 site at Tsang Tsui (i.e. 18 hectares). Apart from developing I • PARKs and other WtE facilities, the Administration will implement MSW charging in 2023 and continue to strengthen other waste reduction and recycling measures. It will keep in view the effectiveness of these measures in driving waste reduction. As the Northern Metropolis will be a strategic growth area, the Administration will plan ahead the development of I • PARK3 thereat, which will minimize cross-district transportation of waste for disposal or treatment outside the area. The current target is to first identify a suitable site for I • PARK3 by 2023 while its development timetable will be drawn up at a later stage depending on the site location.

55. On the front of food waste treatment, the Administration has advised that it has been proactively enhancing Hong Kong's food waste treatment capacity by adopting advanced technologies to recycle the collected food waste into renewable energy and compost, so as to relieve the burden on landfill. O • PARK2 in North District and the "Food Waste / Sewage Sludge Anaerobic Co-digestion" trial scheme in Shatin Sewage Treatment Works are under construction. The Administration will in future make good use of food waste / sewage sludge anaerobic co-digestion in suitable STWs to enhance Hong Kong's overall food waste treatment capacity. Relevant practice and technology is more cost effective and require less land; and can expedite the enhancement of the overall food waste recycling capacity in Hong Kong. Under the current planning, food waste/sewage sludge co-digestion facilities will be constructed in four STWs and operated by the Drainage Services Department, which together will provide additional food waste treatment capacity of 1 000 tonnes per day.<sup>9</sup>

---

<sup>9</sup> The four STWs and their respective food waste treatment capacities are Yuen Long Effluent Polishing Plant (200 tonnes/day), Hung Shui Kiu Effluent Polishing Plant (200 tonnes/day), Yuen Long South Effluent Pollishing Plant (100 tonnes/day) and Tai Po STW (500 tonnes/day).

### *Recommendations*

56. Concerning the development of WtE/WtR infrastructure, the Subcommittee recommends that:

- (a) the Administration should endeavour to turn locally generated MSW into resources or energy through WtE/WtR facilities as far as practicable;

#### *Modern waste-to-energy incinerators*

- (b) the operation of modern WtE incinerators (I • PARKs) should not cause pollution and other adverse impact to the environment. Recyclable materials, if any, should be sorted out and recovered as far as practicable from the waste delivered to I • PARKs. Residues from incineration should be properly handled and recycled where practicable and feasible;
- (c) the Administration should study ways to shorten the project timeframe for developing I • PARK2 and I • PARK3 by drawing reference from the development of similar facilities in the Mainland, and increase the handling capacity of these facilities. In particular, the Administration should not wait until the completion of I • PARK2 to commence the relevant studies/works for I • PARK3;
- (d) as I • PARK2 will be constructed in the Tsang Tsui middle ash lagoon in Tuen Mun which was close to Lung Kwu Tan, the Administration should consider the concerns of the local residents, such as issues relating to the external transport links for Lung Kwu Tan, and provide appropriate compensatory measures;
- (e) publicity should be strengthened to promote the WtE/WtR facilities in Hong Kong and enhance public understanding of how the development of such facilities will help achieve carbon neutrality;

#### *Food waste treatment facilities*

- (f) when planning new development areas, considerations should be given to setting up food waste/sewage sludge anaerobic co-digestion facilities in suitable STWs, including reserving land for setting up organic waste pre-treatment centres at the sites or at nearby-locations; and
- (g) given that the daily quantity of food waste collected through different channels in Hong Kong is around 150 tonnes at present,

which has not reached the maximum daily treatment capacity of O•PARK1 and O•PARK2 together (i.e. 500 tonnes of food waste daily) and is seriously far behind the target of 1 500 tonnes of food waste to be collected and treated per day by 2030s, the Administration should step up efforts to enhance food waste collection capacity and increase food waste collection points in order to ensure sufficient and more food waste will be collected and achieve better utilization of food waste treatment facilities. This will in turn facilitate and incentivize the public to separate and recover food waste and save their cost that will otherwise incurred by disposal of food waste under MSW charging. The Administration should also timely review the effectiveness of its food waste collection strategies and make adjustments as appropriate and necessary.

### **Way forward**

57. The Subcommittee considered its way forward at the meeting on 27 March 2023 and decided not to seek extension beyond the 12-month work period. At the last meeting held on 8 May 2023, members agreed that the Subcommittee should conclude its work and submit a report to EA Panel. Items proposed for discussion by the Subcommittee but not dealt with within the work period will be referred to EA Panel for follow-up at future meetings.<sup>10</sup>

58. The Subcommittee urges the Administration to take into consideration the concerns and recommendations expressed by members on the various issues set out in this Report to prepare for and complement MSW charging.<sup>11</sup>

### **Advice sought**

59. Members of EA Panel are invited to note the deliberations and recommendations of the Subcommittee set out above.

Council Business Division 1 and Public Complaints Office

Legislative Council Secretariat

15 June 2023

---

<sup>10</sup> These items include: (a) promoting local reuse of recyclables and green procurement in both public and private sectors; (b) planning and support for the development of the green industry and related manpower training; and (c) regional collaboration and strategy for waste management.

<sup>11</sup> The recommendations are set out in paragraphs 17, 31, 36, 39, 51 and 56 of this report.

**Panel on Environmental Affairs**

**Subcommittee to Study Policy Issues Relating to  
Municipal Solid Waste Charging, Recovery and Recycling**

**Terms of Reference**

“To study issues relating to the implementation of the Waste Disposal (Charging for Municipal Solid Waste) (Amendment) Ordinance 2021 as well as policies on waste recovery and recycling, and make recommendations.”

**Panel on Environmental Affairs**

**Subcommittee to Study Policy Issues Relating to  
Municipal Solid Waste Charging, Recovery and Recycling**

**Membership list\***

**Chairman** Hon KWOK Wai-keung, JP

**Deputy Chairman** Ir Hon CHAN Siu-hung, JP

**Members** Hon Elizabeth QUAT, BBS, JP  
Ir Dr Hon LO Wai-kwok, GBS, MH, JP  
Hon Kenneth LAU Ip-keung, BBS, MH, JP  
Hon Tony TSE Wai-chuen, BBS, JP  
Hon Judy CHAN Kapui, MH  
Ir Hon Gary ZHANG Xinyu

(Total : 8 members)

**Clerk** Ms Angel SHEK

**Legal Adviser** Mr Alvin CHUI

\*Changes in membership are shown in **Annex**.



## Annex to Appendix 2

### Panel on Environmental Affairs

#### Subcommittee to Study Policy Issues Relating to Municipal Solid Waste Charging, Recovery and Recycling

#### Changes in membership

<b>Member</b>	<b>Relevant date</b>
Hon Carmen KAN Wai-mun	Up to 9 May 2022
Hon Vincent CHENG Wing-shun, MH, JP	Up to 10 January 2023
Hon Judy CHAN Kapui, MH	Since 20 March 2023

**Subcommittee to Study Policy Issues Relating to  
Municipal Solid Waste Charging, Recovery and Recycling**

**Major issues studied**

	<b>Issue</b>	<b>Date of meeting</b>
(a)	Preparatory work for the implementation of municipal solid waste charging	6 June 2022 and 31 January 2023
(b)	Central collection services for major recyclables and community recycling network	12 July 2022
(c)	Development of waste-to-energy/resources infrastructure	8 November 2022
(d)	Producer responsibility scheme	31 January 2023
(e)	Food waste treatment facilities	8 May 2023

**Local visits**

	<b>Waste management facilities</b>	<b>Date of visit</b>
(a)	GREEN@TUEN MUN, Y•PARK and T•PARK	8 October 2022
(b)	O•PARK1 and O•PARK2	2 May 2023