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Panel on Environmental Affairs

Meeting on 24 April 2017

Background brief on waste reduction and recycling prepared by the Legislative Council Secretariat

Purpose

This paper provides background information on waste reduction and recycling in Hong Kong. It also gives a brief account of the views and concerns expressed by Members when related issues were discussed by relevant committees of the Legislative Council ("LegCo").

Background

Strategies on waste management

Policy Framework on the Management of Municipal Solid Waste (2005-2014)

2. Hong Kong's daily per capita waste disposal rate is higher than those of many developed economies, and Hong Kong relies principally on landfills to treat its waste.¹ To tackle the waste problem, the Administration published the "Policy Framework on the Management of Municipal Solid Waste (2005-2014)" ("2005 Policy Framework") in December 2005, which sets out a comprehensive strategy and targets for (a) reducing municipal solid waste ("MSW") generation, ² (b) increasing resources reuse, recovery and recycling, ³ and

¹ In 2015, the average daily quantity of solid waste disposed of at landfills was 15 102 tonnes, of which around 67% (10 159 tonnes) was municipal solid waste ("MSW"). The per capita disposal rate for MSW in 2015 was 1.39 kg per day.

 $^{^2}$ The target was to reduce the amount of MSW generated by 1% per annum up to the year 2014.

(c) reducing MSW disposal rates,⁴ for the decade from 2005 to 2014. The 2005 Policy Framework proposes a series of policy tools and measures, with emphasis on community participation and the "polluter pays" principle.

Hong Kong: Blueprint for Sustainable Use of Resources 2013-2022

3. In 2013, the Administration published the "Hong Kong Blueprint for Sustainable Use of Resources 2013-2022" ("2013 Blueprint"), which maps out specific action plans and timetable for Hong Kong's waste management and a target to reduce the per capita disposal rate of MSW by 40% by 2022.⁵ Key actions proposed in the 2013 Blueprint include: (a) policies and legislation to drive behavioural changes to reduce waste at source, (b) targeted territory-wide waste reduction campaigns to arouse public awareness and encourage community participation, and (c) enhancement of waste-related infrastructures. The major measures to promote waste reduction and recycling are given in **Appendix I**.

Steering Committee to Promote the Sustainable Development of the Recycling Industry

4. To step up concerted efforts in reducing waste at source, the Government set up the Steering Committee to Promote the Sustainable Development of the Recycling Industry in August 2013, led by the Chief Secretary for Administration and comprising members from nine bureau and departments. Since its establishment, the Steering Committee has engaged the recycling trade and other stakeholders in exploring ways to promote the sustainable development of the recycling industry and support recycling operations.

Creation of a supernumerary post of Assistant Director of Environmental Protection

5. With the approval of the Finance Committee on 6 June 2014, a supernumerary post of Assistant Director of Environmental Protection ("ADEP") (D2) was created in June 2014 for a period of three years to head a new Waste Reduction and Recycling Division in the Environmental Protection Department

 $^{^{3}}$ The target was to increase the recovery rate of MSW to 45% by 2009 and 50% by 2014.

⁴ The target was to reduce the percentage of MSW disposed of at landfills from 60% in 2004 to 25% in 2014, with the remaining 50% of MSW being recovered and 25% being treated by an integrated waste management facility.

⁵ Unlike the 2005 Policy Framework, a single target of reducing the MSW waste disposal rate was adopted in the 2013 Blueprint.

("EPD").⁶ The Division is responsible for, among other things, enhancing the standards of practice of recycling operations, administering the Recycling Fund,⁷ promoting green procurement, reviewing the infrastructural support for recycling industries, and launching public education and publicity programmes on waste reduction and recycling.

Director of Audit's Report No. 65

6. In October 2015, the Director of Audit completed a review to examine the Government's efforts in managing MSW and a relevant report was published in the Director of Audit's Report No. 65 ("the Audit Report"). The Audit Report made a number of recommendations for the Government to, among other things, improve the management of tenancies of the EcoPark in Tuen Mun which was developed to provide long-term land at affordable cost for use by recyclers. The Public Accounts Committee ("PAC") of LegCo noted that the Administration agreed to follow up the Audit Report's relevant recommendations. For instance, the Administration will step up lease enforcement actions to ensure that EcoPark tenants can commence operation as planned, meet their recycling throughput and operate without disruptions. It will also explore setting up a suitable charging scheme for temporary use of vacant land lots by commercial tenants in future.

Major views and concerns expressed by Members

7. The Panel on Environmental Affairs ("EA Panel") discussed issues relating to waste reduction and recycling at various meetings. The staffing proposal to create the supernumerary ADEP post in EPD was discussed by the Establishment Subcommittee and the Finance Committee in February and June 2014 respectively. Waste reduction and recycling issues were also raised at the meetings of the relevant bills committees on legislative proposals relating to the introduction of producer responsibility schemes ("PRSs") for waste electrical and electronic equipment and glass beverage containers, and at the meetings of the Subcommittee on Refuse Collection and Resource Recovery

⁶ For details of the funding proposal on the creation of the new post, please refer to the Administration's <u>paper</u> issued for the meeting of the Finance Committee on 6 June 2014 (EC(2013-14)22).

⁷ The Recycling Fund was launched in October 2015 with the objective of facilitating the sustainable development of the local recycling industry through upgrading their operational effectiveness and capacity. The Fund provides funding support to projects which can (a) raise the quantity and quality of recyclables recovered from the waste stream as well as those of recycled products from their treatment, (b) promote markets for recycled products, and (c) enhance the overall capability, capacity, efficiency and skills as well as market information of the recycling industry.

under EA Panel. PAC held two public hearings to study the findings of the Audit Report. The major views and concerns expressed by Members are summarized in the ensuing paragraphs.

Waste reduction and recycling

8. Members noted with grave concern that the Administration had failed to meet the main waste management targets set out in the 2005 Policy Framework.⁸ There had also been over-estimation of MSW recovery rates in the past which distorted the effectiveness of the Government's efforts to increase MSW recovery and recycling. Members urged the Administration to step up efforts on various fronts to reduce and recycle waste, including:

- (a) obtaining accurate statistics for estimating MSW-generation quantities and recovery rates, and strengthening efforts to closely monitor the trend of per-capita-per-day MSW disposal and implementation of all major environmental projects, with a view to meeting the targets set out in the 2013 Blueprint;
- (b) expediting actions to implement PRSs and MSW charging scheme;
- (c) facilitating and increasing recovery of plastic recyclables and promoting the sustainable development of the waste plastic recycling industry;
- (d) reviewing the role of Community Green Stations, which are being developed in each of the 18 districts to enhance environmental education and help collect different types of recyclables, in waste reduction, recovery and recycling;
- (e) exploring with the Food and Environmental Hygiene Department the possibility of converting existing or new refuse collection points ("RCPs") into refuse collection cum resource recovery centres with a view to recovering more recyclables before landfilling the waste collected from RCPs;
- (f) stepping up public education on, and consider legislating for, source separation of waste; and

⁸ According to the PAC Report No. 65, MSW-generation quantities of 5.62 million tonnes in 2014 had exceeded the target of 5.25 million tonnes by 7%. The published MSWrecovery rate of 37% in 2014 had fallen short of the target level of 50% by 13 percentage points. The percentage of MSW disposed of at landfills was 63% in 2014, which had exceeded the target level of 25% by 38 percentage points.

(g) combating disposal of imported waste in local landfills.

9. Taking note of Members' views and suggestions, the Administration assured Members that it would continue to take forward different programmes and initiatives to promote waste recovery and recycling based on the action plan in the 2013 Blueprint. The Administration was also implementing various measures to assist the recycling industry, including:

- (a) providing funding support through the Recycling Fund to the recycling industry;
- (b) provision of sites for recycling operations and berths in public cargo working areas ("PCWAs") for export of recyclables;
- (c) assisting recyclers in securing berthing facilities in PCWAs through enhancing tendering arrangement of berths in PCWAs;
- (d) developing schemes to strengthen occupational safety of the recycling industry and to help lower the cost of employees' compensation insurance for the industry; and
- (e) strengthening manpower training and promoting best practices within the recycling industry.

10. The Administration pointed out that the above measures would complement other longer-term measures to reduce waste and promote recycling, such as introduction of PRSs and the further development of EcoPark. The establishment of the new Waste Reduction and Recycling Division in EPD was also expected to help implementation of the relevant measures in a more focused and efficient manner.

Recycling Fund

11. Referring to the low rate of successful applications approved under the Recycling Fund and the lengthy and complicated application procedures,⁹ Members queried the effectiveness of the Fund in addressing the operational and financial difficulties of recyclers. There was a suggestion that the Administration should provide price subsidies in respect of plastic recyclables and other recyclables of low commercial value if their international market

⁹ As at mid-November 2016, a total of 48 projects out of 137 applications had been approved under the Enterprise Support Programme (including the Small-scale Standard Projects) and the Industry Support Programme established under the Recycling Fund, involving a total funding of around \$54 million.

prices dropped to specified levels, or providing tax incentives for waste recyclers. 10

12. The Administration advised that a streamlined programme had been introduced under the Recycling Fund to assist small and medium-sized recyclers to implement small-scale standard projects ("SSPs") which involved lower project costs, such as procurement of small-scale equipment for enhancing processing and collection of recyclables. To help SSP applicants overcome cash flow crunch, partial reimbursement of expenses of an SSP would be provided midway through the project period upon meeting significant milestones, instead of full reimbursement upon completion of the project. The Administration emphasized that the Recycling Fund aimed to enhance the capabilities of recyclers, thereby improving the quantity and quality of recyclables recovered, and to promote market viability for recycled materials currently deemed to have a low commercial value. It would not be appropriate to provide direct subsidies to help recyclers maintain an otherwise unprofitable business.

Manpower of the Waste Reduction and Recycling Division

13. Some Members opined that as the duties of the new Waste Reduction and Recycling Division in EPD were ongoing in nature, the ADEP post and other non-directorate supporting posts in the Division should be created on a permanent basis to ensure continuity of work, especially in developing the recycling industry. The Administration advised that it would review the need of retaining the posts concerned before they lapsed having regard to the operational needs and process of work of the Division.

Council questions

14. In 2013-2014 to 2016-2017, Members raised questions about waste recovery and recycling at various Council meetings. Issues covered in the questions include MSW management, measures to support the recycling of waste plastics and car batteries, development of the recycling industry, and the Recycling Fund. The questions and the Administration's replies are hyperlinked in **Appendix II**.

¹⁰ For details of Members' views and concerns on the operation of the Recycling Fund, please refer to the <u>background brief</u> on the Recycling Fund prepared by the Legislative Council Secretariat issued for the meeting of EA Panel on 28 November 2016 (LC Paper No. CB(1)158/16-17(05)).

Latest development

15. The Administration will brief EA Panel on the manpower arrangements for implementation of measures on promoting waste reduction and recycling at the meeting on 24 April 2017.

Relevant papers

16. A list of relevant papers is set out in **Appendix II**.

Council Business Division 1 Legislative Council Secretariat 18 April 2017

Appendix I

Major measures to promote waste reduction and recycling

Producer responsibility schemes

Producer responsibility schemes ("PRSs") require manufacturers, importers, wholesalers, retailers and consumers to share the responsibility for the collection, recycling, treatment and disposal of end-of-life products in line with the "polluter pays" principle, with a view to avoiding and reducing the environmental impacts caused by such products at the post-consumer stage. The Product Eco-responsibility Ordinance (Cap. 603) ("PERO") was enacted in July 2008 to provide a legal framework for all PRSs. The Environmental Levy Scheme on Plastic Shopping Bags is the first PRS introduced under PERO, which has been fully implemented from April 2015. Implementation of the PRSs on waste electrical and electronic equipment ("WEEE") and glass containers is in the pipeline.¹

Municipal solid waste charging

2. In the light of public consultation results, the Administration affirmed that a quantity-based municipal solid waste ("MSW") charging scheme should be introduced as a key policy tool to reduce MSW, and has been developing the implementation details for the MSW charging scheme, in which the ultimate goal is to implement charging "by household using pre-paid designated garbage bags". For MSW disposal through private waste collectors, a "gate fee" based on the weight of waste disposed of will apply at landfills and refuse transfer stations.² The Administration plans to introduce into the Legislative Council a bill to amend the Waste Disposal Ordinance (Cap. 354) in the second quarter of 2017 to provide the legal backing to the charging scheme. It is expected that MSW charging will be implemented in the second half of 2019 at the earliest.

¹ The Promotion of Recycling and Proper Disposal (Electrical Equipment and Electronic Equipment) (Amendment) Ordinance 2016 and the Promotion of Recycling and Proper Disposal (Product Container) (Amendment) Ordinance 2016 were enacted in March and May 2016 respectively, which have not commenced operation. The Administration is preparing the relevant subsidiary legislation under these Ordinances for the implementation of the two PRSs concerned.

² MSW from commercial and industrial establishments as well as some residential buildings is not covered by the Food and Environmental Hygiene Department's direct collection service. Their waste is collected and delivered to landfills or refuse transfer stations by private waste collectors.

Recycling Fund

3. The Recycling Fund was launched in October 2015 with the objective of facilitating the sustainable development of the local recycling industry through upgrading their operational effectiveness and capacity. The Fund provides funding support to projects which can (a) raise the quantity and quality of recyclables recovered from the waste stream as well as those of recycled products from their treatment, (b) promote markets for recycled products, and (c) enhance the overall capability, capacity, efficiency and skills as well as market information of the recycling industry.

Infrastructural support for recycling operations

4. Relevant infrastructural support for recycling operations includes the EcoPark in Tuen Mun which provides affordable land with longer tenure to encourage investments in higher value-added processing of recyclables, allocation of suitable berths in public cargo working areas for exclusive bidding by recyclers, development of Organic Waste Treatment Facilities and the WEEE Treatment and Recycling Facility, etc. The Administration has also commissioned a consultancy study on the land requirements of the recycling industry, which will facilitate the formulation of land support measures for waste recovery and recycling activities.

Green procurement

5. The Administration has been taking the lead to adopt a green procurement policy to boost the demand for recycled products. Government departments are encouraged to purchase green products as far as possible and where economically rational. The Administration's Green Procurement List covers around 150 items with updated green specifications and is being promoted to quasi-government organizations as well as the private sector.

Community mobilization

6. The Programme on Source Separation of Waste was launched in 2005 to encourage residents to separate their waste. Under the Programme, recycling bins are provided by the Environment and Conservation Fund ("ECF") to participating residential estates. Since September 2008, the Programme has been extended to cover commercial and industrial buildings. The Programme now covers around 80% of the population in Hong Kong. A Community Recycling Network has also been established to cater for the need of residents living in buildings not provided with any waste separation facilities. The Network includes 18 Community Recycling Centres with support from ECF, and about 60 collection points located in different premises managed by non-profit-making organizations.

7. Moreover, the Administration is developing a Community Green Station ("CGS") in each of the 18 districts to enhance environmental education and help collect different types of recyclables, especially those of lower economic value including electrical appliances, glass beverage bottles, compact fluorescent lamps/tubes and rechargeable batteries, in the local community.³ Materials collected by CGSs will be delivered to qualified recyclers for proper treatment and turning waste into resources.

³ CGSs are operated by non-profit-making organizations selected through open tender. Sha Tin CGS, Eastern CGS, Kwun Tong CGS and Yuen Long CGS have commenced operation.

Appendix II

Waste reduction and recycling

List of relevant papers

Date	Event	Paper
16 December 2013	Meeting of the Panel on Environmental Affairs ("EA Panel")	Administration's paper on "Promotion of recycling industry" (LC Paper No. <u>CB(1)500/13-14(03)</u>) Minutes of meeting (LC Paper No. <u>CB(1)1103/13-14</u>)
27 January 2014	EA Panel meeting	Administration's supplementary paper on "Promotion of recycling industry" (LC Paper No. <u>CB(1)787/13-14(03)</u>) Administration's paper on "2014 Policy Address – Policy initiatives of Environment Bureau: Environmental protection" (LC Paper No. <u>CB(1)744/13-14(01)</u>) Minutes of meeting (LC Paper No. <u>CB(1)1291/13-14</u>)
19 February 2014	Meeting of the Establishment Subcommittee	Administration's paper on "Proposed creation of one supernumerary post of Assistant Director of Environmental Protection (D2) in the Environmental Protection Department for a period of three years to lead a new Waste Reduction and Recycling Division" (EC(2013-14)22) Minutes of meeting (LC Paper No. ESC43/13-14)
6 June 2014	Meeting of the Finance Committee	Minutes of meeting (LC Paper No. <u>FC55/14-15</u>)

Date	Event	Paper
23 July 2014	EA Panel meeting	Administration's paper on "Measures to promote the recycling industry and establishment of the Recycling Fund" (LC Paper No. <u>CB(1)1814/13-14(03)</u>) Minutes of meeting (LC Paper No. <u>CB(1)61/14-15</u>)
25 February 2015	EA Panel meeting	Administration's paper on "Framework proposal for implementation of municipal solid waste charging" (LC Paper No. $CB(1)560/14-15(08)$) Minutes of meeting (LC Paper No. $CB(1)726/14-15$)
April to December 2015	The Bills Committee on Promotion of Recycling and Proper Disposal (Electrical Equipment and Electronic Equipment) (Amendment) Bill 2015	1
17 July 2015	Meeting of the Finance Committee	Administration's paper on "Recycling Fund" (FCR(2015-16)25) Minutes of meetings (LC Paper No. FC65/15-16) (LC Paper No. FC66/15-16) Administration's follow-up paper (LC Paper No. FC248/14-15(01))
October 2015 to February 2016	The Bills Committee on Promotion of Recycling and Proper Disposal (Product Container) (Amendment) Bill 2015	Report of the Bills Committee (LC Paper No. <u>CB(1)791/15-16</u>)

Date	Event	Paper
25 January 2016	Policy briefing cum meeting of EA Panel	Administration's paper on "2016 Policy Address – Policy initiatives of Environment Bureau: Environmental protection" (LC Paper No. <u>CB(1)459/15-16(03)</u>) Minutes of meeting (LC Paper No. <u>CB(1)739/15-16</u>)
24 October 2016	EA Panel meeting	Administration's paper on "Implementation of measures to reduce and recycle food waste – progress and manpower arrangements" (LC Paper No. <u>CB(1)19/16-17(05)</u>) Minutes of meeting (LC Paper No. <u>CB(1)210/16-17</u>)
28 November 2016	EA Panel meeting	Administration's paper on "Implementation of the Recycling Fund" (LC Paper No. <u>CB(1)158/16-17(04)</u>) Minutes of meeting (LC Paper No. <u>CB(1)369/16-17</u>)
13 December 2016	MeetingoftheSubcommitteeonRefuseCollectionResourceand	
16 January 2017	MeetingoftheSubcommitteeonRefuseCollectionResourceand	Minutes of meeting (LC Paper No. <u>CB(1)558/16-17</u>)
23 January 2017	EA Panel meeting	Administration's paper on "Implementation of the Producer Responsibility Scheme on Waste Electrical and Electronic Equipment" (LC Paper No. $CB(1)444/16-17(03)$) Minutes of meeting (LC Paper No. $CB(1)683/16-17$)

Date	Event	Paper
27 March 2017	EA Panel meeting	Administration's paper on "Implementation arrangements for municipal solid waste charging" (LC Paper No. <u>CB(1)697/16-17(01)</u>)

Hyperlinks to relevant documents:

Organization	Document
Environmental Protection Department	A Policy Framework for the Management of Municipal Solid Waste (2005-2014)
Environment Bureau	Hong Kong Blueprint for Sustainable Use of Resources 2013- 2022

Hyperlinks to relevant Council Questions:

Date	Council Question
20 November 2013	Press release on Council question (oral) raised by Hon CHAN Hak-kan
18 June 2014	Press release on Council question (written) raised by Hon Jeffrey LAM
25 March 2015	Press release on Council question (oral) raised by Hon CHAN Hak-kan
28 October 2015	Press release on Council question (written) raised by Hon KWOK Wai-keung
2 December 2015	Press release on Council question (written) raised by Hon KWOK Ka-ki
16 December 2015	Press release on Council question (written) raised by Hon CHAN Hak-kan

25 May 2016	Press release on Hon IP Kwok-him	Council	question	(written)	raised	by
	Press release on Hon Frankie YICK		question	(written)	raised	by
7 December 2016	Press release on Hon Kenneth Leun		question	(written)	raised	by

Hyperlinks to Director of Audit's Report No. 65 and Public Accounts Committee report:

Date	Reports
27 October 2015	Director of Audit's Report No. 65 <u>Chapter 1</u> on "Government's efforts in managing municipal solid wastes"
17 February 2016	Public Accounts Committee Report No. 65 Chapter 1 of Part 8 on " Government's efforts in managing municipal solid wastes "