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Legislative Council

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Panel on Environmental Affairs

Meeting on 22 March 2021

**Background brief on
Producer Responsibility Scheme on plastic beverage containers
prepared by the Legislative Council Secretariat**

Purpose

This paper provides background information on the Producer Responsibility Scheme ("PRS") on plastic beverage containers ("PPRS").¹ It also gives a brief account of the views and concerns expressed by Members when the subject was discussed by relevant committees of the Legislative Council ("LegCo").

Background

2. Waste plastics disposed of at landfills in Hong Kong had increased by 36% from 2009 to 2019. In 2019, of the 11 057 tonnes per day ("tpd") municipal solid waste ("MSW") disposed of at landfills, 2 320 tpd were waste plastics (21% of MSW) among which 5% were plastic beverage containers.

3. In October 2017, the Environmental Protection Department commissioned a consultancy study of introducing a PRS on suitable plastic product containers. The study reveals that among various plastic product containers, beverage containers are relatively easy to handle due to the high

¹ PRS is a key policy tool in the waste management strategy in Hong Kong. Enshrining the principle of "polluter pays" and the element of "eco-responsibility", the PRS concept requires manufacturers, importers, wholesalers, retailers and consumers to share the responsibility for the collection, recycling, treatment and disposal of end-of-life products with a view to avoiding and reducing the environmental impacts caused by such products at the post-consumer stage.

homogeneity of the plastics involved.² If these plastic beverage containers are collected centrally through a dedicated recovery system, their recycling value and efficiency can be enhanced effectively.

4. The Administration announced the "Waste Blueprint for Hong Kong 2035" on 8 February 2021 which sets out the strategies, goals and measures to tackle the challenges of waste management up to 2035, and to promote a circular economy and green living environment. In order to achieve the vision of "Waste Reduction · Resources Circulation · Zero Landfill" advocated in the Blueprint, the Administration has decided to take forward a PPRS that requires relevant stakeholders to jointly share the environmental responsibilities of collecting and treating plastic beverage containers.

Public consultation on Producer Responsibility Scheme on plastic beverage containers

5. The Administration launched a three-month public consultation on PPRS on 22 February 2021. In line with the overarching principles of "polluter pays" and share-out of "eco-responsibility" laid down in the Product Eco-responsibility Ordinance ("PERO") (Cap. 603),³ the Administration proposed a PPRS with the following key features:

- (a) a levy to be collected at the beverage supplier level (mainly local beverage manufacturers and importers) to fund the operation of the PPRS. The recycling levy rate will be determined having regard to two major factors, namely, (i) the administration and operation expenditures of the PPRS, including collection and processing costs for waste plastic beverage containers (i.e. the "recycling fee"); and (ii) the rebate to be offered to the public on return of used containers at return points;⁴
- (b) a rebate arrangement to be set up to encourage the public to return plastic beverage containers. Initially, a rebate of 10 cents is proposed to be provided for the return of a plastic beverage

² According to the Administration, over 90% of plastic-bottled beverage products circulating in the market are carried in polyethylene terephthalate (i.e. PET) containers. This type of mono-material plastic beverage containers has a higher recycling value.

³ PERO was enacted in July 2008 which serves as a piece of "umbrella" legislation that provides the shared core elements of all PRSs and the fundamental regulatory requirements in respect of individual types of product, with operational details to be set out in the Ordinance and its subsidiary legislation.

⁴ Based on the initial guesstimates on the recycling fee projected by the consultant engaged by the Government, if the rebate level is set at 10 cents per container, the recycling levy would be around 50-65 cents per 500 ml container.

container at designated return points;

- (c) certain retail stores selling pre-packaged plastic-bottled beverages to serve as designated return points; and
- (d) application of reverse vending machines ("RVMs"),⁵ as appropriate, to enhance the recovery efficiency and facilitate the provision of rebate.

Pilot scheme on reverse vending machines

6. To examine the technical aspects of RVM in collecting plastic beverage containers, the Administration conducted a trial at seven Recycling Stations (formerly known as "Community Green Stations") between June 2019 and November 2020, during which over 1.2 million plastic beverage containers (approximately 36 tonnes) were recycled. A one-year RVM Pilot Scheme has been rolled out in January 2021 to install a total of 60 RVMs in phases at different locations,⁶ primarily at public places and government facilities with suitable foot traffic.

Major views and concerns expressed by Members

7. Issues relating to waste plastics including the introduction of PPRS were raised at various meetings of the Panel on Environmental Affairs ("EA Panel") in the Sixth LegCo. Relevant issues were also brought up at the meetings of the Bills Committee on Waste Disposal (Charging for Municipal Solid Waste) (Amendment) Bill 2018 and during the examination of the Estimates of Expenditure in recent years. Members' major views and concerns are summarized in the ensuing paragraphs.

⁵ RVM is an automatic device that allows consumers to feed in used beverage containers (such as plastic beverage containers) for instant rebate. It is usually equipped with scanning function to verify the barcodes on containers to ensure that only designated containers are accepted. Many RVMs are also equipped with compression function to reduce the volume of beverage containers so as to enhance the RVMs' handling and storage capacity.

⁶ Under the Pilot Scheme, an instant rebate of 10 cents will be provided via e-payment platforms for each plastic beverage container properly returned to an RVM. Each e-payment platform account will allow returning a maximum of 30 plastic beverage containers a day. Members of the public may also choose to donate the rebate (no daily limit imposed) to designated charities to benefit the community.

Implementation of Producer Responsibility Scheme on plastic beverage containers

8. Members considered that all or part of the costs of handling waste plastics generated from product packaging and end-of-life products should be shared by the producers (including distributors) through imposing a levy on plastic products, and/or requiring each producer to recover and recycle a certain volume of waste plastics in proportion to the amount of plastic contents in distributed products. Members urged the Administration to implement PPRS as soon as possible so that the producers and suppliers concerned would be required to shoulder more responsibility for reducing waste. Members also asked about the targets, if any, set by the Administration on reduction of waste plastic containers disposed of at landfills.

9. The Administration advised that it had been monitoring the disposal situations of all types of waste, in particular the disposal of waste plastics. Taking into account the recommendations of the feasibility study conducted in 2017, the Administration had decided to press ahead with the introduction of the PPRS. One key element of the proposed PPRS would be the introduction of a recycling levy at the supplier level concerned in line with the "polluter-pays" principle. Subject to the views collected during public consultation and the legislative procedures required, the PPRS may be implemented by 2025 the earliest. The Administration pointed out that according to the experience of other places, with the implementation of relevant PRSs, the recovery rate of plastic beverage containers could reach 50% or above.

10. The Administration stressed that it had taken the lead in reducing the use of plastic bottles. For instance, the sale of plastic bottled drinking water of one litre or less in the automatic vending machines ("AVMs") in government venues had stopped progressively from February 2018. Over 80% of about 1 600 AVMs installed at government premises had put in place the above stop-sale arrangement. The arrangement would be extended to the remaining AVMs progressively during the renewal of existing relevant contracts, lease/tenancy agreements or permissions. The Administration would also aim to increase the number of water dispensers by 500 to about 3 200 units by 2022 for public use in government venues, with a view to encouraging the public to bring their own bottles and promoting a "plastic-free" culture.

11. As regards whether the Administration would introduce legislation to ban the sale of drinks in plastic bottles in the long run, the Administration advised that most countries did not head towards a total ban. In considering whether and how to ban the sale of plastic bottle beverages through legislation, a prudent balance had to be struck among various considerations, including a consensus at the community level. At this stage, the Administration had no plan to ban the sale of plastic bottle beverages.

Reverse vending machines

12. Members suggested that RVMs could be installed in public rental housing estates first through collaboration with the Hong Kong Housing Authority. Referring to the problems encountered by green groups and private organizations in setting up RVMs, such as small capacities and frequent malfunctioning of the machines, Members expressed concern that the Administration might face similar problems when implementing the RVM Pilot Scheme.

13. The Administration advised that the suitability of different RVM models for use under Hong Kong's climate conditions would be tested under the Scheme. The Administration had set up some of the RVMs at locations with high foot traffic to assess the feasibility and cost-effectiveness of their application in the local context and gauge public responses.

Recycling of waste plastics

14. Members expressed concern about the low recovery rate of waste plastics and insufficient recycling capacity for waste plastics.⁷ They urged the Administration to strengthen support for the local recycling chain of waste plastics, so as to increase the recycling outlets for waste plastics and enhance the viability of related businesses.

15. The Administration explained that the recovery rate of waste plastics had been low due to high transportation costs involved as well as the imposition of stringent import and export control on waste plastics by many jurisdictions. It had stepped up efforts in publicity and public education on clean recycling including encouraging the public to first recycle waste plastic bottles, in particular those of beverages. The Administration would intervene in the recycling businesses of certain recyclables that were otherwise unviable. For instance, the Pilot Scheme on Collection and Recycling Services of Plastic Recyclable Materials was launched (for Eastern District, Sha Tin and Kwun Tong) in 2019-2020 to support the recycling of waste plastics. The current service areas covered about 42% to 64% of the population in the three districts, and more than 200 tonnes of plastic recyclables had been collected which was in line with the planned target. Subject to the experience and effectiveness of this pilot scheme, the Administration would consider expanding the service to the whole territory gradually.

⁷ According to "Monitoring of Solid Waste in Hong Kong" issued by the Environmental Protection Department in December 2020, the plastics recyclables recovery rate was 8% in 2019.

Council questions

16. At the Council meetings of 6 June 2018, 17 April 2019, 13 November 2019 and 4 November 2020, Members raised questions in relation to management of waste plastic containers. The questions and the Administration's replies are hyperlinked in the **Appendix**.

Latest development

17. At the meeting on 22 March 2021, the Administration will brief EA Panel on the consultation document on the proposed PPRS.

Relevant papers

18. A list of relevant papers is set out in the **Appendix**.

Council Business Division 1
Legislative Council Secretariat
16 March 2021

Producer Responsibility Scheme on plastic beverage containers

List of relevant papers

Date of meeting	Event	Paper
30 October 2017	Policy briefing cum meeting of the Panel on Environmental Affairs ("EA Panel")	<p>Administration's paper on "2017 Policy Address - Policy initiatives of Environment Bureau: Environmental protection" (LC Paper No. CB(1)75/17-18(01))</p> <p>Minutes of meeting (LC Paper No. CB(1)399/17-18)</p>
26 November 2018	Meeting of EA Panel	<p>Background brief on "Complementary measures in relation to municipal solid waste charging" prepared by the Legislative Council Secretariat (LC Paper No. CB(1)189/18-19(05))</p> <p>Minutes of meeting (LC Paper No. CB(1)595/18-19)</p>
25 February 2019	Meeting of EA Panel	<p>Administration's paper on " Staffing proposal to take forward Municipal Solid Waste Charging and complementary waste reduction and recycling initiatives" (LC Paper No. CB(1)596/18-19(04))</p> <p>Updated background brief on "Municipal solid waste charging" prepared by the Legislative Council Secretariat (LC Paper No. CB(1)596/18-19(05))</p> <p>Administration's follow-up paper (LC Paper No. CB(1)974/18-19(02))</p> <p>Minutes of meeting (LC Paper No. CB(1)981/18-19)</p>

Date of meeting	Event	Paper
9 April 2019	Special meeting of the Finance Committee ("FC") for examination of Estimates of Expenditure 2019-2020	Written questions raised by Members and the Administration's replies (Reply serial numbers: ENB051 , ENB060 , ENB141 , ENB148 , ENB164 , ENB275 , ENB293)
29 April 2019	Meeting of EA Panel	Administration's paper on "Proposed enhancement measures to the Recycling Fund" (LC Paper No. CB(1)922/18-19(03)) Minutes of meeting (LC Paper No. CB(1)1191/18-19)
28 October 2019	Policy briefing cum meeting of EA Panel	Administration's paper on "2019 Policy Address - Policy initiatives of Environment Bureau: Environmental protection" (LC Paper No. CB(1)31/19-20(03)) Minutes of meeting (LC Paper No. CB(1)251/19-20)
6 April 2020	Special meeting of FC for examination of Estimates of Expenditure 2020-2021	Written questions raised by Members and the Administration's replies (Reply serial numbers: ENB038 , ENB082 , ENB098 , ENB114 , ENB115 , ENB140 , ENB234 , ENB282)
25 May 2020	Meeting of EA Panel	Administration's paper on "Management of waste plastics" (LC Paper No. CB(1)655/19-20(03)) Background brief on "Management of waste plastics" prepared by the Legislative Council Secretariat (LC Paper No. CB(1)655/19-20(04))

Date of meeting	Event	Paper
		Administration's follow-up paper (LC Paper No. CB(1)857/19-20(02)) Minutes of meeting (LC Paper No. CB(1)932/19-20)
10 July 2020*	Report of the Bills Committee on Waste Disposal (Charging for Municipal Solid Waste) (Amendment) Bill 2018 to the House Committee	Report of the Bills Committee on Waste Disposal (Charging for Municipal Solid Waste) (Amendment) Bill 2018 (LC Paper No. CB(1)849/19-20)
25 January 2021	Meeting of EA Panel	Administration's paper on "Waste Management Strategies for Hong Kong" (LC Paper No. CB(1)480/20-21(03)) Background brief on "Waste management strategies" prepared by the Legislative Council Secretariat (LC Paper No. CB(1)480/20-21(04))

*Issue date of paper

Other relevant documents:

Government bureau	Document
Environment Bureau	Waste Blueprint for Hong Kong 2035 Consultation paper on the Producer Responsibility Scheme on Plastic Beverage Containers

Hyperlinks to relevant Council questions:

Date	Council Question
6 June 2018	Press release on Council question (written) raised by Mr Kenneth LEUNG
17 April 2019	Press release on Council question (written) raised by Ms Elizabeth QUAT
13 November 2019	Press release on Council question (written) raised by Mr Kenneth LEUNG
4 November 2020	Press release on Council question (oral) raised by Mr Vincent CHENG