

**For discussion on  
31 January 2023**

**Legislative Council Panel on Environmental Affairs  
Subcommittee to Study Policy Issues Relating to  
Municipal Solid Waste Charging, Recovery and Recycling**

**Producer Responsibility Scheme**

**PURPOSE**

This paper reports to Members the progress of the relevant work on the implementation or introduction of various Producer Responsibility Schemes (PRSs).

**BACKGROUND**

2. PRS is one of the key policy tools in the waste management strategy in Hong Kong. Based on the principle of “polluter-pays” and the concept of “eco-responsibility”, the PRS requires relevant stakeholders, including 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.

3. The Legislative Council (LegCo) passed the Producer Eco-responsibility Ordinance (Cap. 603) (PERO) in July 2008. The PERO stipulates the regulatory requirements and operational details of the PRSs for individual products. At present, the PRSs that have been fully implemented by the Government include the Plastic Shopping Bag (PSB) Charging Scheme and the PRS on Waste Electrical and Electronic Equipment (WPRS). Besides, the Government will fully implement the PRS on Glass Beverage Containers (GPRS) on 1 May this year, and is now formulating the regulatory framework and operational details for the implementation of the PRS on plastic beverage containers and beverage cartons.

## **PROGRESS OF VARIOUS PRSs**

### *PSB Charging Scheme*

4. The first phase of the PSB Charging Scheme was implemented in 2009, and was subsequently fully implemented to cover the entire retail sector in 2015. Save for exempted circumstances, retailers had to charge customers for at least 50 cents per PSB distributed. According to the landfill disposal survey, it is estimated that the total PSB disposal rate decreased by 25% in 2015 (i.e. the first year of the full implementation of the Scheme). However, subsequent years had seen rebounds in PSB disposal. It reflects that there is a need to enhance the Scheme to maintain its effectiveness in waste reduction.

5. The Government invited the Council for Sustainable Development (SDC) to conduct a public engagement on control of single-use plastics in 2021. The SDC subsequently made 24 recommendations in April 2022, including 12 on enhancing the PSB Charging Scheme. The Government adopted the SDC's recommendations, and proposed the following enhancement measures after examining the actual operation of the Charging Scheme:

- (i) removing the present exemption for PSBs carrying frozen/ chilled foodstuff items;
- (ii) tightening the exemption relating to foodstuff items such that free PSBs can only be provided when purchasing foodstuff items without packaging or not wholly contained in any packaging, or purchasing food and beverage takeaway items in non-airtight packaging, subject to the basic principle of "one free PSB per single transaction"; and
- (iii) increasing the charging level per PSB from the current level of at least 50 cents to at least \$1.

6. The relevant legislative amendment was passed at the LegCo meeting on 19 October 2022. The Government immediately launched a series of publicity. Apart from conducting a number of briefings for the trade, we also visited around 10,000 retail stores (including wet market stalls) in Hong Kong to introduce the enhanced measures. Besides, the Government has launched TV and radio announcements in the public interest, posters, promotional leaflets, advertisements on public transports and online advertisements, etc. for a period of six months since mid-December last year. A Practical Guideline was also prepared for the trade's reference. The enhanced PSB Charging Scheme has been running smoothly in general since its

commencement on 31 December 2022. The Government will closely monitor the use of plastic bags at retail points after the enhancement measures to assess the effectiveness of the relevant measures.

## *WPRS*

7. The WPRS has been fully implemented since 2018, covering regulated electrical equipment (REE), namely air-conditioners, refrigerators, washing machines, televisions, computers, printers, scanners and monitors (commonly known as “四電一腦” in Chinese). The key features of the scheme include requiring manufacturers and importers of REE to register as registered suppliers with the Environmental Protection Department (EPD) and pay recycling levy<sup>1</sup> for the REE they distribute in Hong Kong. After distributing the REE, sellers of REE must, upon request, arrange free removal service for consumers, and deliver the old equipment of the same class to a licensed recycler. Besides, any person who is engaged in the storage, treatment, reprocessing or recycling of abandoned regulated waste electrical and electronic equipment (WEEE) must obtain a waste disposal licence. A permit is required for the import and export of regulated WEEE, and regulated WEEE is no longer accepted for disposal at landfills and other designated waste disposal facilities (e.g. refuse transfer stations).

8. The Waste Electrical and Electronic Equipment Treatment and Recycling Facility (WEEE•PARK), with a designed capacity of 30 000 tonnes per year, has also commenced full operation since March 2018 to underpin WPRS through its treatment and recycling process to turn the regulated WEEE into valuable secondary raw materials, including copper, aluminium, iron, plastics, etc. As at the end of 2022, more than 100 000 tonnes of regulated WEEE have been processed.

9. Currently, an REE seller is required by law to arrange for its customers a statutory free removal service to collect a used equipment of the same class abandoned by the customer. Upon purchase of the REE item, the customer can request the seller to arrange for delivery of the new item and removal of the used item on the same day for proper collection of the unwanted item. In addition to the statutory removal service, the operator of WEEE•PARK also provides free collection service. Members of the public not purchasing new REE can make appointments with the operator through

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<sup>1</sup> Television and refrigerator - \$165 per item; Washing machine and air conditioner - \$125 per item; Monitor - \$45 per item; Computer, printer and scanner - \$15 per item.

the recycling hotline 2676 8888 for collecting their WEEE. In general, the operator has been able to arrange door-to-door collection in around a week or a shorter time after receiving the request, saving members of the public the burden of disposing of the used REE on their own or at a cost.

10. In accordance with the “polluter-pays” principle, the Government sets the recycling levy at such a level to recover the full cost of WPRS, including the capital cost and recurrent expenditure of WEEE-PARK, as well as other related expenses in the administration of the WPRS.

11. EPD reviews the coverage and operational details of WPRS from time to time. Taking into account factors including the actual implementation of WPRS, the latest sales figures, the situation of recycling and landfill disposal of REEs and development of the market and treatment technology, etc., we propose to amend the Product Eco-responsibility Ordinance (Cap. 603) to expand the coverage of the existing REE items, including (i) raising the cap of the rated storage volume of regulated refrigerators from 500 litres to 900 litres; (ii) raising the cap of the rated washing capacity of regulated washing machines from 10 kg to 15 kg; and (iii) including stand-alone clothes dryer and dehumidifier as new REE items. Besides, taking into account the actual implementation of WPRS, we propose to remove the requirements in relation to the provision of recycling labels and to allow the authority to serve payment and assessment notices to registered suppliers through electronic means, in order to enhance the WPRS process. We consulted the Panel on Environmental Affairs of the LegCo on 24 October 2022, and members generally supported the proposal. We will submit the relevant Amendment Bill to the LegCo for scrutiny in early 2023. Subject to the passage of the Amendment Bill, it is expected that the enhanced WPRS will be implemented in 2024 at the earliest.

### *GPRS*

12. Since the enactment of the Promotion of Recycling and Proper Disposal (Product Container) (Amendment) Ordinance 2016 by the LegCo in June 2016, the EPD has been making arrangement to put in place the GPRS progressively, including the appointment of glass management contractors to provide regional collection and treatment services for waste glass containers across the territory and the drafting of the relevant subsidiary legislation to provide for the operational details of the GPRS. The subsidiary legislation was passed by the LegCo on 3 November 2022, and the GPRS will be implemented fully on 1 May 2023. Starting from 1 May, a beverage supplier (including manufacturer and importer) who distributes glass-bottled beverages in Hong Kong must first register with the EPD as a registered supplier and

must fulfil the statutory obligations of a registered supplier, including submission of returns, payment of container recycling levies, submission of audit reports, etc. The level of container recycling fee is set at \$0.98 per litre volume to recover the operating costs of the scheme. Exemption will be provided for a registered supplier who has in place a recovery and reuse arrangement for the glass containers of its beverage products, if certain criteria are met. Besides, any person who stores, treats, reprocesses or recycles glass container waste must obtain a waste disposal licence, and any person who imports into or exports from Hong Kong glass container waste must obtain the relevant import/export permit. This is to ensure that such waste is recycled and disposed of in a proper and environmentally sound manner.

13. Since early 2018, the glass management contractors appointed by the EPD have been providing collection and treatment services for waste glass containers progressively, paving the way for the implementation of the GPRS. As at the end of 2022, about 4 400 glass container collection points had been set up in Hong Kong and more than 84 000 tonnes of waste glass containers had been collected for proper treatment. Currently, glass containers recovered and treated locally are used for producing eco-pavers and cement (44%), while some are exported to other places for recycling (12%). The recycled glass materials are also used as fill materials in various public works projects (44%). These outlets can fully absorb the glass materials recovered locally.

#### *PRS on Plastic Beverage Containers and Beverage Cartons*

14. The Government conducted a public consultation from February to May 2021 on the introduction of a PRS on Plastic Beverage Containers. The community responded positively to the proposal in general. Having considered the views received and the experience in other places, the Government will adopt a “market-based model” for the implementation of this PRS, allowing the relevant stakeholders (such as suppliers, retailers, collectors and recyclers) to play more active roles in the scheme, which in turn will help enhance the efficiency and cost-effectiveness of the recycling arrangement. The role of the Government in the scheme is to formulate the legislative framework, monitor the effectiveness of the operation of the scheme, and ensure compliance with legal requirements by relevant parties. Besides, having considered the development of the local recycling market and the views of the community, we have decided to include beverage cartons in the scheme in order to achieve synergy, which will help to enhance the cost-effectiveness of the overall operation of the scheme.

15. Under the “market-based model”, the relevant recovery services (including the setting up of return point network, collection of plastic beverage containers and beverage cartons, provision of rebates and the arrangement for proper recycling) will be provided by the market. Suppliers have to meet the statutory recovery target set by the Government. To this end, instead of the Government appointing contractors to provide the recovery service as in the past, beverage suppliers will have to either arrange by themselves for the recovery of plastic beverage containers and beverage cartons for proper recycling, or engage the recovery services of scheme operators from the market by paying them a recycling fee (with rebates included). Any persons (be they a supplier, recycler or non-profit organisation, etc.) interested in providing the relevant services in the market can apply to the Government for registration as a registered scheme operator, based on their own business strategy and commercial consideration. The major arrangements of the scheme are as follows:

- (i) the Government will set an overall recovery target for plastic beverage containers and beverage cartons;
- (ii) relevant beverage suppliers have to meet the recovery target set by the Government;
- (iii) beverage suppliers may arrange recovery on their own, or engage the recovery services of scheme operators from the market and pay them a recycling fee;
- (iv) suppliers or scheme operators should provide rebates to incentivise the public to return used plastic beverage containers and beverage cartons to designated return points to increase the recovery rate;
- (v) retailers selling beverages in plastic containers and cartons with certain operation scale (say, those retail stores with a retail floor area of 200 m<sup>2</sup> or above) must serve as designated return points and provide takeback and rebate services; and
- (vi) licensing requirement will be imposed on recycling and treatment facilities for handling waste plastic beverage containers and beverage cartons, to ensure proper treatment of the waste plastic beverage containers and beverage cartons collected.

16. To encourage the public to return their used plastic beverage containers and beverage cartons for recycling, the Government will set a

minimum rebate level<sup>2</sup> on a per-container basis, and the public can receive the rebate at designated return points. Apart from providing cash rebates, the scheme operator may provide rebates in other forms (e.g. cash coupon of supermarkets or shopping centres) for consideration of the public, or provide higher level of rebate to the public to boost the recovery rate when necessary.

17. We will finalise the regulatory framework and the operational details of the scheme as soon as possible and start drafting the relevant legislative proposals with a view to introducing a bill into the LegCo for scrutiny in 2023. Subject to the progress of the legislative process and the required preparatory work, we expect to implement this PRS in 2025 at the earliest.

18. Furthermore, to pave way for the implementation of the PRS on plastic beverage containers, the EPD launched the first stage of a pilot scheme in the first quarter of 2021 to assess the application of reverse vending machines (RVMs) for recovering plastic beverage containers in Hong Kong. We set up a total of 60 RVMs in public places, government facilities or shopping centres with suitable foot traffic, with the provision of an instant rebate (\$0.1 per plastic beverage container) via e-payment platforms. Positive responses from the public have been received since the rollout of the pilot scheme. Stage 2 of the pilot scheme was launched in the second quarter of 2022, with the number of RVMs increased to 120. By the end of 2022, over 41 million plastic beverage containers had been recovered under the pilot scheme.

## **TO FORMULATE PRSs MORE EFFECTIVELY**

19. Generally speaking, when considering the introduction of a PRS for a certain type of product, we need to take into account the necessity, the situation of recycling, the outlets for recycled materials, its priority among other products, and, in particular, whether the local recycling market is already equipped with the necessary technology and capacity for transforming the product into materials with market value, as well as the environmental problems caused by the concerned product and its burden on landfills. We will review various types of products from time to time to determine the priority of implementing PRS for them. Products under review include electric vehicle batteries, lead-acid batteries and vehicle tyres.

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<sup>2</sup> For reference, a rebate of \$0.1 per container as a start was proposed in the public consultation paper.

20. The existing PERO stipulates the detailed provisions for the PRS of each type of product. In order to introduce new PRSs in a more effective way, we are reviewing how to amend the PERO to simplify the legislative process. For example, the general operational arrangement of PRSs and the responsibilities of relevant stakeholders can be stipulated in the main Ordinance, while the operational details applicable to individual products can be prescribed in subsidiary legislation or other relevant documents. Besides, with reference to the experience in other places, we are inclined to implement new PRSs in the future in the “market-based model”, and relevant regulatory requirements will be introduced for individual products taking into account their recycling operation. Our target is to consult the Panel on Environmental Affairs of the LegCo on the legislative amendment proposal within this year.

### **ADVICE SOUGHT**

21. Members are invited to take note of the progress of the relevant work on the PRSs, and provide comments.

**Environment and Ecology Bureau  
Environmental Protection Department  
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