Promotion of Recycling and Proper Disposal (Product Container) (Amendment) Bill 2015

This note sets out the Government's response to the issues raised by Bills Committee members at the meeting on 15 December 2015.

Definitions

"Beverage"

Further to paragraph 2 of and Annex A to the Administration's written response to the issues raised at the Bills Committee's meeting on 30 October 2015 Legislative Council ("LegCo") Paper No. CB(1)270/15-16(01)) in which reference has been made to the food category system under the Codex Alimentarius ("Codex") in assessing whether certain products are "beverage" under the mandatory producer responsibility scheme on product containers which will initially cover glass beverage containers ("the mandatory PRS"), the Administration is requested to –

(a) provide the legal basis, in the light of the proposed definition of "beverage" in the Promotion of Recycling and Proper Disposal (Product Container) (Amendment) Bill 2015 ("the Bill"), for drawing reference to the Codex to determine whether a product falls under the said definition as drafted in the Bill; and

(b) further elaborate on, with reference to the food categories as stated in the said Annex A, whether the food categories of the Codex are mutually exclusive, that is, a product which is under one category of Codex cannot appear in any other food categories under Codex.

2. Our current proposal in the Bill is that "beverage" means every type of drink and includes water. As we explained at the Bills Committee meeting on 15 December 2015, it is not reasonable to take that "beverage" means any edible substances that are in liquid form. For beverages held in glass containers that are distributed in Hong Kong, the overwhelming majority are alcoholic drinks (80.2%), water (8.6%), juice products (4.5%) and other non-alcoholic beverages that are normally taken as "drinks". As beverage products change in response to market

and customer demands, it is not practicable to aim at setting out an exhaustive list of products which are considered as "beverage" and provide each product with a technical definition under the proposed PRS.

3. Rather, the Codex has provided a relevant framework that may assist in determining whether a certain product should be regarded as a "beverage". At Annex A to LegCo Paper No. CB(1)270/15-16(01), we have illustrated how the Codex may be used for such purpose. Since individual food categories under the Codex are not necessarily mutually exclusive, it is important to take into account practical and other customary considerations in the determination process. The key consideration is that there is good understanding among the relevant trades on the categorization of different products into "beverage" and "food". We will maintain close liaison with the relevant trades as we formulate the operational guidelines under the proposed PRS with a view to clearing up any ambiguities in determining which product is deemed as beverage at a later stage.

<u>"Glass"</u>

The Administration is requested to provide the definition of "glass" for determining whether a product container is a glass container, and hence a beverage held in that container is covered by the mandatory PRS.

4. Technically, "glass" refers to non-crystalline amorphous solid made principally from silica. Glass materials used for beverage containers have similar properties that are generally distinct from other materials. As such, we do not consider it useful to include a technical definition, as, not only is a technical definition of "glass" not absolutely necessary for effective enforcement, but it may complicate the enforcement regime.

Costs and Benefits of the Mandatory PRS

Further to paragraphs 6-8 of the aforesaid Administration's written response, the Administration is requested to –

(a) elaborate on all relevant costs and savings/benefits involved (with ballpark estimations set out in terms of per-litre costs/savings where appropriate) in the operation of the mandatory PRS, including the collection, treatment,

reuse/recycling and outlets of glass beverage containers (including the costs/values of different types of recycled glass products (e.g. eco-pavers and glass cullet as a substitute for river sand)), so as to demonstrate the feasibility of the scheme in achieving a balance of payments along the supply/recycling chain to recover the full PRS costs; and

5. As we highlighted in the LegCo Brief, at present, without a mandatory PRS, the collection of waste glass containers and treatment to turn them into resource cannot be done by relying on market forces. In the PowerPoint presentation at the Bills Committee meeting on 15 December 2015, we explained that –

(a) the average costs for the existing voluntary glass collection programmes/services funded under the Environment and Conservation Fund and other sources range from $800 per tonne to $6 300 per tonne, with the median standing at $2 100 per tonne[1] as they vary in the detailed components of the programmes; and

(b) the estimated treatment cost is in the range of $800 to $1 000 per tonne for crushing the glass containers into cullet to be used in the manufacturing of eco-pavers and in reclamation and other earthworks in place of aggregates that are available free of charge in the public fill banks.

6. For general reference, according to the Business Impact Assessment study based on 2012 market data, the total volume of beverages held in glass containers that were distributed in Hong Kong was in the region of 120 million litres. Under the proposed PRS, we recommend that the recycling levy will be imposed on all regulated articles distributed in Hong Kong. As regards the costs for hiring glass management contractors ("GMCs") for collection and treatment of waste glass containers from waste producers, we estimate it would also be in the order of $120 million per annum on the basis of a collection target of 50 000 tonnes or 50% of the waste glass containers generated. Of course, the exact costs will be subject to the outcome of the open tender exercise.

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1 Such operating costs are not comparable due to differences in service content, scale of service and cost structure. For instance, some programmes involve publicity and public education service in addition to the collection service.

7. There are other factors that may affect the recycling levy. For instance, (i) inflation, (ii) participation rate in glass container recycling and contamination of the recovered glass containers and (iii) fluctuations in the sales volume of regulated articles. There would also be related expenses in the administration of the PRS, such as staff costs, departmental expenses, accommodation costs, depreciation, costs of services provided by other departments and central administrative overhead that may be incurred under the PRS.

(b) provide a consolidated response in consultation with relevant bureaux/departments (such as the Civil Engineering and Development Department) regarding (i) the technical and financial feasibilities of using glass cullet as a substitute for river sand in public works, including the estimated cost savings to be achieved based on the highest/lowest river sand prices in the past five years, etc., together with (ii) an analysis of the commercial values and environmental benefits compared to other viable outlets, such as reusing the glass containers, or using them for the production of eco-pavers and other construction materials, or as fill materials in reclamation and other earthworks, etc.

8. The reuse of waste glass beverage containers is beneficial to the environment because it can save energy used in the manufacturing of glass from raw materials. We have proposed that exemption be granted under the mandatory PRS so as to encourage the continuation of the existing reuse arrangements. We will also keep other suppliers closely engaged and will flexibly consider their plans in developing similar reuse arrangements. As regards the GMCs, we will facilitate the delivery of glass containers to credible reuse/recycling markets outside Hong Kong.

9. Given that we do not have a strong presence of the relevant industries in Hong Kong and the high shipping cost to overseas can significantly undermine the commercial viability, we have collaborated with the Development Bureau for alternative applications by which waste glass containers can be crushed into cullet for use as construction materials. The commercial values and environmental benefits of such applications are set out below –

(a) ***to replace aggregates in the manufacturing of eco-partition blocks (under research/trial) or as fill materials in reclamation and other earthwork (under research/trial)***:

These applications can expedite the implementation of the mandatory PRS or expand the outlets of the recycled glass materials, thus enabling the diversion of waste glass containers from the landfill on a long term basis. Prior to the implementation of the proposed PRS, as aggregates are in abundant supply free of charge at the public fill banks, the total manufacturing costs of such eco-materials will most likely be higher than those made from conventional materials in view of the additional costs for collection and treatment of waste glass containers. The situation will change when the proposed PRS is implemented as the collection and treatment of waste glass containers would be covered by the recycling levy, which will remove the abovementioned additional costs as compared with the use of aggregates for production of construction materials. On the other hand, there would be savings in the collection and disposal of waste glass containers at the landfills.

(b) ***to replace river sand in the production of eco-paver*s *(implemented) or cement mortar for building and refurbishment works (under research/trial)***: In addition to the benefits under (a), this application may reduce the demand for the natural materials being substituted (i.e. river sand) which is under limited supply and is commercially of a higher value. For ease of reference, the general cost of river sand in the past five years range from $100 to $150 per tonne.

(c) ***to replace marine sand fill in reclamation (implemented)***: The environmental benefits are similar to (a) and (b). For ease of reference, the average raw material cost of marine sand fill imported in recent years is about $20 per tonne.

Selection and Monitoring of Glass Management Contractors

The Administration is requested to –

(a) set out the terms and conditions to be included in the tender documents for glass management contractors ("GMCs"), together with a list of required information in their tender submissions, such as glass container recovery targets and recovery plans/strategies including the provision of incentives/rebates, cost computations, sources and types of

glass containers to be recovered, outlets for the glass containers recovered, etc.;

10. We are at the planning stage in the preparation of the open tenders for hiring the GMCs. In general, each tenderer will be required to submit a technical proposal and a price proposal. For the technical proposal, it should detail the tenderer's plan on how he or she will perform the role as GMC if appointed as such, including –

(a) maintain a sufficient network of collection points so that waste producers (mainly pubs and bars and other catering services) may conveniently participate in waste glass container recycling and accept all properly rinsed waste glass containers (including food/sauce containers);

(b) coordinate with Community Green Stations ("CGSs") to manage the glass container collection services provided to residential buildings/estates in the catchment region so that the glass containers gathered by CGSs will be efficiently delivered to the collection/recovery facilities of the GMC; and

(c) arrange gainful reuse of the waste glass containers, or properly treat them in its own plant or through outsourcing until they become reusable materials.

11. As regards the financial proposal, the tenderers should complete the price schedules following the requirements in tender documents. A GMC will in general be paid with reference to the quantity of waste glass containers collected and treated.

(b) provide the major considerations of and criteria for selecting GMCs; and

12. In line with other similar tendering exercises, the contracts will be awarded after taking into account the price proposals, on the principle that the tender submission with the highest combined score of technical and price proposals would normally be recommended for acceptance.

(c) elaborate on how it would monitor the implementation of the recovery plans/strategies laid down in the GMCs' tender submissions, and any consequences in case of non-performance.

13. The effectiveness of the mandatory PRS will mainly be assessed on the basis of the amount of glass containers which have been recovered. The relevant statistics can be compiled directly from the records that will be submitted by the GMCs. Such information must be audited by certified auditors before submission. The Environmental Protection Department will also vet the relevant information for monitoring of contract performance and for taking necessary actions under the contract provisions.

Environmental Protection Department
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