

**Twelfth Meeting of  
the Business Facilitation Advisory Committee**

***Agenda Item 3 : Producer Responsibility Scheme for  
Waste Electrical and Electronic Equipment***

**Purpose**

The Chief Executive committed in his 2009-10 Policy Address that the Government would consult the public on introducing legislation to implement a mandatory producer responsibility scheme for waste electrical and electronic equipment (“WEEE”). This paper outlines the environmental issues involved in the proper management of WEEE and provides an update of the latest developments.

**Background**

2. WEEE contains hazardous components that are harmful to the environment and human health if not properly treated and disposed of. For instance, lead and mercury, which are usually found in electrical appliances and computers, could cause cognitive deficits in children, and could damage kidney, liver and the neural, circulatory and reproductive systems. In addition, some WEEE contains chlorofluorocarbon and hydrochlorofluorocarbon, which destroy the ozone layer and contribute to global climate change. Many governments have introduced mandatory schemes to regulate the disposal of WEEE<sup>1</sup>.

3. WEEE is also emerging as a challenge to Hong Kong. In 2008, more than 70 000 tonnes of WEEE were generated in Hong Kong. On average about 80% of locally generated WEEE are recovered by second-hand dealers who sell them for re-use and recovery of valuable materials, mainly at developing countries. Notwithstanding the seemingly high recovery rate, this export strategy is neither environmentally sound nor sustainable because the recovery processes used in those developing countries often have little

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<sup>1</sup> Many member states of the European Union introduced producer responsibility schemes on WEEE since the 1990s, e.g. the Netherlands and Switzerland in 1998, Denmark in 1999, Sweden in 2001 and the United Kingdom in 2006. In the Asia Pacific region, Japan, Korea and Taiwan have already implemented specific measures for the management of WEEE. Mainland China also passed legislation in 2009 to enable mandatory WEEE control with effect from 1 January 2011.

regard for safety and environmental protection. Furthermore, as the living standard improves and the awareness of sustainability develops, the trend is that those developing countries would become less interested in receiving WEEE. At the same time, given economic growth and technological advancement, WEEE generation in Hong Kong has been on the increase (by about 2% annually in recent years). This trend is expected to continue. We therefore need to develop a local solution in the spirit of eco-responsibility to manage the WEEE problem as soon as practicable.

### **The Present Situation**

4. We have introduced two government-funded recycling programmes for computers and electrical equipment since 2003, with the participation of non-governmental organizations Caritas and St. James Settlement; and a trade-based recycling programme for computers since 2007, with the participation of some 20 computer equipment manufacturers and suppliers. While these programmes have enhanced public awareness, the volume of WEEE treated under these programmes amounts to about 1% of the WEEE generated locally. We therefore consider it necessary to introduce a mandatory scheme.

5. The Product Eco-responsibility Ordinance was enacted in July 2008 to provide for a legal framework to implement producer responsibility schemes for six types of products including electrical and electronic equipment. Enshrining the principle of “polluter pays” and the concept of “eco-responsibility”, these schemes require manufacturers, importers, wholesalers, retailers, consumers, etc to share the responsibility of managing wastes along the lifecycle of the relevant products. The first scheme has been implemented in July 2009 for plastic shopping bags. Following the launch of the plastic bags levy scheme, we will consult the public on the introduction of a producer responsibility scheme for electrical and electronic equipment at the end of this year.

### **The WEEE Scheme for Hong Kong**

6. We believe that by putting in place a proper scheme for WEEE in Hong Kong, we could –

- (a) foster reuse and recycling of products or parts thereof, thus promoting more efficient use of natural resources;

- (b) minimize the impacts that WEEE might bring about for the environment and the health of those who have to handle such waste;
- (c) cope with the increasing volume of WEEE without creating additional pressure on our already-stretched landfill facilities;
- (d) better align with the “polluter pays” principle in financing the management of WEEE;
- (e) keep pace with developments in the international community and in particular the neighbouring region in the management of WEEE; and
- (f) promote the development of the environmental industry in Hong Kong as one of our key economic areas.

7. We have examined the experience overseas and are aware that bringing WEEE under mandatory control through producer responsibility schemes is the mainstream. Yet the features of these producer responsibility schemes vary from one jurisdiction to another. The purpose of our upcoming consultation is to present our analysis of the options for formulating the WEEE Scheme for Hong Kong, giving regard to relevant international experience as well as our local context. Such analysis would be surrounding the following aspects –

- (a) coverage of the WEEE Scheme;
- (b) proper treatment of WEEE;
- (c) managing the flow of WEEE; and
- (d) sharing the cost.

### ***Coverage of the WEEE Scheme***

8. The European Union mandates its member states to include a broad class of electrical and electronic products in their WEEE schemes. But many other jurisdictions focus primarily at bulky household appliances such as televisions, refrigerators, washing machines and air conditioners, and computer products such as desktops, laptops, printers, scanners and monitors. In the context of Hong Kong, these products jointly represent the major source (i.e. 86% by weight) of locally-generated WEEE and they generally

contain more hazardous substances than other equipment. Should the WEEE Scheme cover all types of WEEE or start with a specific focus at certain categories?

9. Other related issues include how much locally-generated WEEE we aim to collect and recycle through the WEEE Scheme (and how much would be deferred to private operators such as second-hand dealers), and the coverage of products already purchased before the commencement of the WEEE Scheme, or “historical products”.

### ***Proper Treatment of WEEE***

10. A local WEEE processing plant which has the adequate capacity and adopts the appropriate technology is a prerequisite to the WEEE Scheme. Proper treatment and recycling of WEEE involves various dismantling, detoxification and recovery processes. International experience is that the WEEE schemes operated overseas are often underpinned by local facilities. Under the WEEE Scheme, a WEEE Management Contractor (“WMC”) could be appointed through open tender to provide WEEE collection and recycling services in strict compliance with the relevant legislation and relevant best practices in waste management. That said, there is no qualified plant currently in Hong Kong that is capable of undertaking proper treatment and recycling of the proposed regulated products on a commercial basis and in a territory-wide scale. How should we develop the local treatment capacity that is required for Hong Kong under the WEEE Scheme?

11. Separately, we envisage that we would require strengthened licensing control for the processing and storage of regulated WEEE or products so as to ensure that the handling processes of WEEE by relevant operators (including the appointed WMC as mentioned in paragraph 9) are environmentally sound.

### ***Managing the Flow of WEEE***

12. There should be effective measures to properly manage the flow of WEEE after the implementation of the WEEE Scheme. On the one hand, it is important to ensure that an adequate volume of locally generated WEEE is collected for local treatment. On the other hand, we have to ensure that WEEE generated overseas would not be dumped into Hong Kong creating a burden for our new treatment plant. At present, we already have in place a network of collection outlets comprising –

- (a) municipal collection facilities, including refuse collection points and designated WEEE regional transfer centres which accept WEEE for disposal free of charge;
- (b) second-hand dealers, who often purchase WEEE at a low cost (typically less than \$100 per item); and
- (c) charitable organizations, which organize WEEE refurbishment and donation programmes.

On the whole, these collection channels work fairly well. But there is scope to further explore enhancements. To this, measures such as landfill disposal ban, mandatory “take-back” by retailers and distributors as well as tightened import/export control have been attempted internationally.

### *Sharing the Cost*

13. In line with the “polluter pays” principle, the WEEE Scheme should seek to recover its operating costs for waste collection, the recycling processes and other management and administrative matters. Based on the requirements on who to pay, when to pay, and how to pay, the more common charging methods include –

- (a) a visible levy, which is a separate fee paid by consumers when they purchase new equipment;
- (b) an invisible levy, which is an “inclusive fee” incorporated into the retail price; and
- (c) an end-of-life fee, which requires consumers to purchase a sticker at the time of disposal of end-of-life products.

We need to identify the most suitable charging method which should be practically feasible in the context of Hong Kong and consistent with the principle of “producer responsibility”.

14. An important issue to consider is whether the environmental levy (if cost is recovered in this form) could be set at a reasonable level for the public to bear. In a recent survey by the Central Policy Unit, about half of the respondents (49.2%) consider up to 2.5% of the retail price would be reasonable whereas another quarter (23.9%) find 2.5% to 5% of the retail

price a reasonable range. We would gauge further views of the community on what is a reasonable and acceptable level of the environmental levy through the public consultation exercise.

### **Advice Sought and Way Forward**

15. We welcome views from Members and would take them into account in finalizing our Consultation Document for publication by end 2009.

16. Upon publication of the Consultation Document, there would be a three-month consultation period during which submissions from the community (including the business sector) would be most welcome. We would also seek to proactively brief major chambers of commerce, trade groups and other advisory/consultative bodies.

17. In parallel, we would carry out a Business Impact Assessment (BIA) focusing on the implications of the proposed scheme on the affected business stakeholder groups, including importers, distributors, retailers, second-hand dealers and recyclers. This BIA would also assess the impact on the small-sized companies. The BIA findings would be considered in conjunction with the outcome of the public consultation before we take the matter forward.

Environmental Protection Department  
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