

**For discussion on
26 January 2015**

**THE LEGISLATIVE COUNCIL
PANEL ON ENVIRONMENTAL AFFAIRS**

**Producer Responsibility Scheme on
Waste Electrical and Electronic Equipment**

Introduction

This paper briefs Members on the latest development of the implementation of the mandatory producer responsibility scheme (“PRS”) on waste electrical and electronic equipment (“WEEE”) in Hong Kong, including the necessary legislative proposals for establishing the statutory regulatory framework.

Background

2. About 70 000 tonnes of WEEE are generated in Hong Kong annually, most of which are exported for reuse or recovery of valuable materials. The reliance on export however may not be sustainable in the long run because demand for second-hand products overseas will decline over time with progressive economic development and tightening of import control over WEEE in the developing countries. In view of these developments, we conducted public consultation in 2010 and obtained general community support to introduce legislation for the proper management of WEEE through a mandatory PRS. We also received a strong call that the Government needs to demonstrate a firm commitment in kick-starting the PRS through providing assistance in the development of a local treatment facility.

3. We first reported the way forward of the proposed PRS to this Panel on 28 November 2011, including our plan to support the development of a WEEE treatment facility in Hong Kong (known as the WEEE Treatment and Recycling Facility (“WEEETRF”)) to underpin the PRS. Since then, we have been developing the implementation details in consultation with the relevant stakeholders. Recently, we have provided updates of the proposed WEEETRF project and the proposed PRS on WEEE to this Panel on 28 April 2014. With Members’ support,

we are seeking the funding approval for the proposed WEEETRF.

Statutory Regulatory Framework for the PRS

4. The Product Eco-responsibility Ordinance (Cap. 603) (“PERO”) and the Waste Disposal Ordinance (Cap. 354) (“WDO”) will be amended to provide for the statutory regulatory framework for the mandatory PRS on WEEE as outlined in the ensuing paragraphs. We are finalising the legislative proposals for introduction into the Legislative Council (“LegCo”) within the current legislative session.

Scope of Regulated Electrical Equipment

5. We **propose** that the mandatory PRS regulate five types of products, namely (i) washing machines, (ii) refrigerators, (iii) air conditioners, (iv) television sets and (v) computer products viz. computers (i.e. desktops, laptops and tablets), printers, scanners and monitors (collectively as “regulated electrical equipment”). These five types of regulated electrical equipment account for about 85% of WEEE generated locally. The rest is largely consumer electronics, which are often marketable in the second-hand market, or miscellaneous household appliances.

Proper Treatment of Regulated Electrical Equipment

6. We **propose** to apply the licensing control under section 16 of the WDO to regulate the disposal of regulated electrical equipment that have become waste (“regulated e-waste”), including its storage, treatment, reprocessing and recycling. Proper treatment, reprocessing and recycling of WEEE involves dismantling, detoxification and recovery processes. Under the proposed licensing control, a waste disposal licence will only be issued when the operations (including dismantling and detoxification) to turn regulated e-waste into reusable materials are demonstrated to be conducted in environmentally sound procedures. The proposed WEEETRF and other private recyclers undertaking recycling of regulated e-waste will have to obtain a waste disposal licence. In this regard, some practitioners in the recycling industry may undertake part of the treatment process, for example simple dismantling of regulated e-waste for logistic handling. Such process if conducted on a small scale does not cause adverse environmental impacts. In order to avoid undue impact on their operations, which facilitate the collection of regulated e-waste for full treatment by licensed recyclers, we **propose** that

disposal of regulated e-waste on land or in premises with an area of not more than 100 m² will be eligible for such exclusion.

7. For the storage of regulated e-waste, the proposed licensing control under the WDO is expected to significantly improve the environmental performance of WEEE storage sites. According to information available to the Environmental Protection Department, there are about 100 temporary open storage areas in the rural New Territories being used to store WEEE pending shipment overseas. Such storage is usually not properly organised and may cause eyesore and fire risks. In addition, exposure of regulated e-waste to the elements may result in environmental problems such as land contamination from the leaching of heavy metals. We *propose* that in future, a storage site of regulated e-waste will have to first obtain a licence and for that purpose have to satisfy certain housekeeping requirements pertinent to the safety and environmental conditions at the site concerned. For example, there should be a roofed structure and paved areas, a maximum stack height, fire prevention and security measures as well as record-keeping arrangements. We also *propose* that certain exclusions apply –

- (a) *storage in premises of multi-storey buildings*, because these are already proper storage locations where the relevant hardware requirements intended to be imposed as licensing conditions should have been met;
- (b) *small quantity of stockpiling*, as defined to be (we *propose*) a load of regulated e-waste with a total volume of not more than 50 m³. As a rough indication, that is the approximate quantity of e-waste usually stored in a 40-foot cargo container.

Efficient Collection of Regulated Electrical Equipment

8. We *propose* that sellers of regulated electrical equipment be required under the PERO to arrange for removal services (previously known as “take-back”). More specifically, a seller must have a removal service plan approved by the Director of Environmental Protection (“DEP”) under which for every piece of new regulated electrical equipment purchased by a consumer, an equivalent old product can be removed from a premises designated by the consumer for proper disposal

at no extra charge to the consumer^[1]. While the sellers do not have to provide the collection and treatment services direct, each seller must in the removal service plan specify collection and recycling services provider(s) (may or may not be the future WEEETRF operator) and make necessary arrangements for them to provide the relevant services. For transparency, the sellers will be required to provide relevant information to consumers about the service. They should also liaise for the collection schedule and keep relevant records. Suitable operational criteria may be prescribed in future legal provisions on removal services for broad consistency.

9. Hong Kong is a trading hub and may handle international trading of regulated e-waste either as second-hand goods or waste. To further ensure that any regulated e-waste traded through Hong Kong will not increase our waste burden or cause environmental hazards overseas, we *propose* to impose permit control under the WDO such that the import and export of regulated e-waste will require a permit. With the enhanced export control, no regulated e-waste can be exported unless, among other things, the competent authority of the import destination and of each transit destination have consented to the import or transit of such regulated e-waste, and it can be demonstrated as genuinely reusable second-hand products or requiring treatment overseas through sophisticated processes not available in Hong Kong. For imports, we will grant the required permit only if there is a licenced local recycler undertaking the proper treatment of the relevant shipments. The enhanced import control will guard against international dumping and prevent regulated e-waste intended for re-export ending up in Hong Kong.

Landfill Disposal Ban

10. As the mandatory PRS will have put in place proper recycling outlets, we *propose* that regulated e-waste be banned from disposal at the designated waste disposal facilities. This will have the effect of enforcing the diversion of regulated e-waste from the waste stream to proper recycling facilities, including the WEEETRF. While the mandatory PRS will only apply to specific types of regulated e-waste, we will continue to support the proper recycling of non-regulated e-waste, say, through the voluntary programmes funded by the Environment and

¹ For the avoidance of misunderstanding, the availability of removal service does not imply that a consumer must use such service. He or she has a choice to keep the old product or to make separate disposal arrangement at his or her own cost.

Conservation Fund (“ECF”). We will also continue to enhance our publicity and public education on 3R (i.e. Reduce, Reuse and Recycle), educating the public not to dispose of any WEEE as ordinary trash.

Charging of Recycling Fee

11. In line with the “polluter pays” principle, recycling fees will be imposed to recover the full costs of the mandatory PRS on WEEE. We will prescribe the specific recycling fees to be determined at full cost recovery basis taking into account the development and operation costs for the WEEETRF after awarding the contract. We will submit the proposal as subsidiary legislation to the LegCo for approval in due course.

12. We **propose** that the recycling fees be collected from suppliers of regulated electrical equipment who may in turn recover such fees wholly or partially from other stakeholders along the supply chain. The fee collection mechanism is outlined as follows –

- (a) *Registration of Suppliers:* Manufacturers and importers who distribute regulated electrical equipment to the local market will have to be registered as a “registered supplier”.
- (b) *Submission and Auditing of Periodic Returns:* A registered supplier will have to submit to the DEP periodic returns, setting out information that is necessary for the computation of the recycling fees payable. The registered supplier will also have to arrange annual audit on the periodic returns to ensure factual accuracy and keep records to facilitate future inspection. The detailed reporting requirements will be prescribed by regulation.
- (c) *Payment of the Recycling Fees:* Within a specified period of time after receiving a payment notice from the Government, a registered supplier will have to pay the recycling fees to the Government on the basis of the information contained in the periodic returns. We will only collect the recycling fees for regulated electrical equipment that is “used”, or “distributed” to the Hong Kong market, by which we will exclude (i) exports of locally manufactured regulated electrical equipment and (ii) re-exports of imported regulated electrical equipment which will ultimately be used outside Hong Kong.

- (d) *Provision of Recycling Labels:* In order to facilitate identification of regulated electrical equipment which is covered under the mandatory PRS with the recycling fees paid or to be paid by the relevant registered supplier, a registered supplier and a seller must, for each item of regulated electrical equipment distributed, provide a recycling label of the appropriate type as will be specified by the DEP. To better inform the consumers, a seller must also issue a proper receipt with the following wordings –

This equipment is regulated electrical equipment within the meaning of the Product Eco-responsibility Ordinance (Cap. 603). A recycling fee of \$XXX has been or will be paid to the Government by a registered supplier.

Development of the WEEETRF

13. We have been gaining practical experience through voluntary recycling programmes. For instance, through the funding support of the ECF, St. James' Settlement is operating a non-profit WEEE recycling programme, namely WEEE Go Green ^[2]. But this project is able to handle about 200 tonnes of WEEE annually only and will not be able to support a territory-wide local solution for the proper management of WEEE.

14. At the same time, we acknowledge that proper treatment of WEEE is capital intensive. Having reviewed the market situation ^[3], we have come to the view that it is necessary for the Government to develop the WEEETRF under the Public Works Programme in order to kick-start the mandatory PRS. With a design capacity of about 30 000 tonnes per annum, the WEEETRF will not crowd out other WEEE recyclers. Neither will the regulatory framework outlined in the above preclude

² Under the WEEE Go Green programme, used electrical and electronic equipment is collected. Qualified and registered technicians will inspect, repair and test the equipment. Functioning units that meet the required safety standards are donated to the needy or put up for charitable sale. Units that are beyond repair are dismantled and recycled.

³ Since 2011, the overall WEEE treatment capacity in the private market is observed to have expanded. For instance, additional computer recyclers have set up recycling facilities in the EcoPark. However, such expansion in the private market is still insufficient to support the implementation of a mandatory PRS on WEEE of territory-wide scale.

competent WEEE recyclers from operating in the market after obtaining the necessary licences. In case the market demand so requires, there is flexibility for the WEEETRF capacity to be increased to 57 000 tonnes annually. To be selected through open tender, the WEEETRF operator will be responsible for designing, building and operating the WEEETRF. It must obtain a waste disposal licence under the WDO for the disposal of regulated e-waste. The WEEETRF operator must also proactively source and collect e-waste to ensure a ready supply of regulated e-waste for treatment at the WEEETRF. In addition to other collection channels, the WEEETRF operator will, upon request by sellers of regulated electrical equipment, provide free “removal services” (cf. paragraph 8) to collect old equipment from consumers’ premises.

15. We invited the pre-qualified tenderers to submit proposals in the open tender exercise in September 2013 and have completed the tender assessment. Since funding approval from the LegCo is still pending, we have secured the agreement of the pre-qualified tenderers to extend the tender validity until 3 April 2015. If funding approval can be secured by the extended validity period and subject to enactment of the enabling legislation by the LegCo, we estimate that the WEEETRF can be completed by early 2017 in support of the launch of the mandatory PRS about the same time.

Publicity and Public Education

16. To pave way for the implementation of the mandatory PRS, we have been conducting relevant publicity and public education through the provision of recycling services. Amongst other things, we have been supporting relevant trade-led voluntary recycling programmes. We have also arranged mobile WEEE collection vehicles to different regions in the territories to provide direct collection services.

17. In addition, we also have other annual events to cater for the seasonal demand for WEEE recycling. For instance, when the school year started in September 2014, we organised the Schools Recycle WEEE programme under which we provided logistics support to participating schools in collecting used computers and other WEEE. For nine consecutive years, we have been operating the Chinese New Year WEEE Recycling Collection Services programme to encourage the public to recycle WEEE intended for disposal after the year-end clean-up. We will arrange free collection services for participating housing estates and WEEE collected will be recycled or refurbished for reuse. The

programme is now open for enrolment by residential housing estates. Looking ahead, we will continue to step up publicity and public education so as to prepare the community for a permanent WEEE recycling programme of territory-wide scale.

Advice Sought

18. Members are invited to note the above progress in introducing the mandatory PRS on WEEE. We appeal to Members' support for the funding proposal of the WEEETRF and encourage Members' participation in the bills committee when the legislative proposals for the PRS are introduced into the LegCo.

**Environment Bureau / Environmental Protection Department
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