

**For discussion on
24 June 2013**

**LEGISLATIVE COUNCIL
PANEL ON ENVIRONMENTAL AFFAIRS**

**MONITORING THE OUTSOURCING OF THE COLLECTION
OF RECYCLABLE MATERIALS AND PROMOTION
OF THE RECYCLING TRADE**

PURPOSE

As requested by Members, this paper presents the monitoring arrangement for recyclables collection in public places, and the measures taken by the Government to promote the local recycling trade.

BACKGROUND

2. In the document “Hong Kong: Blueprint for Sustainable Use of Resources 2013-2022” (Blueprint) released in May 2013, the Government has mapped out a comprehensive strategy, targets, policies and action plans for waste management that places emphasis on waste reduction and recovery. To achieve this goal, the Government will undertake multiple and concurrent actions to drive behavioural change to reduce waste at source and to roll out targeted territory-wide waste reduction campaigns including waste recycling initiatives.

3. Provision of three-colour waste separation bins (3-colour bins) to recover waste paper, metal and plastic materials is one of the measures to reduce waste requiring disposal and increase recovery quantity. This measure was first introduced under the Waste Reduction Framework Plan launched by the Government in 1998. Since then, the relevant departments including the Food and Environmental Hygiene Department (FEHD), Leisure and Cultural Services Department (LCSD) and Agriculture, Fisheries and Conservation Department (AFCD) have provided 3-colour bins at various public places in Hong Kong.

4. FEHD has been providing recyclables collection service to the 3-colour bins through outsourcing since 2000. As at 1 June 2013, the contract service covers some 3,360 collection points provided in public

places, schools, clinics and venues under the management of LCSD, AFCD and other departments.

5. For private places including domestic, commercial, industrial and institutional premises, the collection of recyclables generated from these sources is arranged by the venue management, most of which relies on hiring of commercial recyclers. In 2009 to 2011, 3.18 million, 3.60 million and 3.02 million tonnes of recyclable materials were recovered from domestic, commercial, industrial and institutional sources in Hong Kong. The overall corresponding Municipal Solid Waste (MSW) recovery rate was 49%, 52% and 48% during the same period respectively. Most of the recovered materials were exported to the Mainland, Taiwan and neighbouring countries such as Japan, Korea, the Philippines, Thailand and Vietnam for recycling, with a total export value ranging from \$5.8 billion to \$8.6 billion per annum respectively.

MANAGEMENT OF RECYCLABLES COLLECTION SERVICE

Services requirements

6. The current 2-year contract for recyclables collection commenced on 1 August 2012. The contract covering the recyclables collection service in the whole territory was awarded by FEHD to a single contractor. The relevant contract provisions stipulate that the contractor is required –

- (a) to provide collection service to each of the collection points at least once weekly or when the bins are more than 70% full. In practice, the collection frequency ranges from once to six times weekly;
- (b) to handle the different types of recyclables separately during the collection, and to properly weigh and record each type of the recyclables collected. Any litter or waste other than recyclables mingled with the recyclables inside the collection bins should be sorted out and disposed of; and
- (c) to arrange for the delivery of all recyclables collected to recyclers, a list of them is given on the Environmental Protection Department (EPD) website.

Monitoring the performance of the contractor

7. FEHD has put in place a comprehensive contract management mechanism. The duties and performance requirements that must be met by the contractor are clearly set out in the contract. FEHD's supervisory staffs are required to monitor the performance of the contractor by regular inspections as well as surprise checks, and to conduct random checks on the records maintained by the contractor, including staff's attendance records, route schedules and relevant receipts issued by the recyclables collectors, to make sure that the contract requirements are met.

8. If any breach of contract provisions is found, FEHD will take punitive actions accordingly, including the issue of verbal warnings, written warnings, notices of default (DNs) to the contractor. The monthly amount payable to the contractor will also be deducted in the light of the DNs issued. For serious breach, FEHD may consider terminating the contract.

Enhanced measures in monitoring the contractor's performance

9. FEHD notes the increased occurrence of irregularities and is concerned about the performance of the contractor. FEHD has increased the frequency of regular inspections and strengthened the surprise checks through inspection in plain clothes, and have taken stringent enforcement actions under the provisions of the contract. Since the commencement of the contract on 1 August 2012, a total of two warning letters and six blatant DNs have been issued against improper disposal of recyclables (as ordinary refuse), and 11 warning letters and 32 DNs on other non-compliant irregularities. FEHD met with the contractor on a number of occasions drawing its attention to the seriousness of the breaches and the associated public concerns, and the need to strictly comply with the relevant provisions of the contract including stepping up its supervision of the collection operation on the ground.

MEASURES TO PROMOTE THE RECYCLING TRADE

10. The success in waste recycling business depends on a number of factors including the availability of clean and properly separated recyclable materials, the costs associated with collection, transportation, sorting and processing, the availability of land and facilities for recycling, as well as the availability of buyers and markets (outlets for recyclables). The Government has implemented a basket of measures on multiple fronts

with a primary focus to create a better business environment for the recycling trade. A summary of the current measures is given below.

Source separation of waste

11. The Government has rolled out a territory-wide programme on source separation of waste to encourage the public to separate waste at source so as to increase the amount of recyclables available for collection and processing by local recyclers. As at end of May 2013, 1,952 housing estates/ residential buildings, 836 commercial and industrial buildings and about 700 rural villages have joined the Source Separation of Waste Programme, covering over 80 per cent of the Hong Kong population. Waste separation bins are provided to the participating estates and buildings through funding and subsidies from the Environmental Campaign Committee (ECC) and the Environment and Conservation Fund (ECF). Apart from recovering paper, metals and plastics, many participating housing estates and buildings also collect a broad range of recyclables including used clothes, glass bottles, compact fluorescent lamps, rechargeable batteries, and waste electrical and electronic equipment.

12. In order to ensure the provision of sufficient space to facilitate residents to practise source separation of waste for material recovery at residential buildings, the Building (Refuse Storage and Material Recovery Chambers and Refuse Chutes) Regulations were amended in 2008. Commencing from 1 December 2008, all new domestic buildings and the domestic part of new composite buildings are required to provide a refuse storage and material recovery room (at least 1.5 metres x 1.5 metres) on every floor.

Community participation

13. While waste separation bins are easily accessible by the majority of the population in housing estates and workplaces, people living in single-block buildings particularly in older districts may not have such convenience because of space and other constraints such as having no property management company or owners corporation to manage the recycling work. In this connection, a Community Recycling Network (CRN) was rolled out in 2012 with more recyclables collection points set up in local districts. At present, some 530 collection points are operating under the CRN and these include 15 recycling centres in 13 districts funded by the ECF, 48 non-government organizations (NGOs) premises in 15 districts, 180 public rental housing estates and 290 schools (**Annex 1**).

14. Apart from setting up more collection points, attention has also been given to enhancing publicity and promotion at the district level. A community participation programme on waste reduction and recycling was therefore rolled out since 2012 by the District Councils, ECC, Home Affairs Department and EPD. From April 2012 to March 2013, more than 210,000 participants joined the promotion activities in all 18 districts. The programme will continue in 2013/14.

Land and funding support

15. As high land cost is a major constraint of the recycling trade, the Government has been providing since 1998 short-term tenancy (STT) sites for exclusive use by recyclers. There are currently 34 such sites, occupying a total area of about 4.9 hectares. In 2011, the quantity of recyclables handled by these sites amounts to some 330,000 tonnes with a total export value of about \$600 million.

16. The Government will continue to identify suitable STT sites for lease by the recyclers. However, as more people are adopting a “Not-In-My-Backyard” attitude towards recycling STT sites, renewal of existing tenures and identifying new sites are becoming more and more difficult with many objections from the local community. There are also other public demands like housing, open space, social services etc. which are competing for sites especially in the urban areas. Furthermore, the lease of STT is normally for 3 to 5 years and therefore recyclers are not willing to make longer-term capital investments.

17. The majority of the recyclers in Hong Kong are very much confined to a simple mode of collection, storage, sorting, baling and exporting, without any value-added recycling process. In an attempt to nurture the recycling trade to engage in more value-added processes in Hong Kong instead of relying solely on export, the Government has developed the EcoPark in Tuen Mun Area 38 to promote the processing of recyclable materials into products with higher economic values.

18. The EcoPark occupies an area of 20 hectares with total rental area of 14 hectares, which provides long-term land at affordable cost for the development of the recycling trade in Hong Kong. The aim is to encourage investment in more advanced technologies and value-adding processes. At present, a total of 14 lots have been leased for recycling waste cooking oil, waste metals, waste wood, waste electrical and electronic equipment (WEEE), waste plastics, waste batteries, waste

construction materials / waste glass, waste tyres and food waste. In 2012, about 50,000 tonnes of recyclable materials were recovered by the EcoPark tenants.

19. As regards funding support to the recycling trade, apart from the the Innovation and Technology Fund (ITF) and the various funds for small and medium enterprises, the ECF has been a main source of funding for waste recycling projects. As waste reduction and recovery is one of the major environmental challenges, the ECF has given funding priority to projects that are related to waste reduction and recovery as well as environmental research. More information on the projects funded by ECF and ITF are provided in **Annex 2** and **Annex 3** respectively.

20. The EPD is also in the process of setting up initially five Community Green Stations to facilitate the collection of recyclables at the district level. The stations will be run by NGOs to provide logistics support in the collection of recyclables and at the same time to deepen environmental protection education and publicity in collaboration with estate managements, schools and community organizations etc. The station should assist the recycling trade in lessening the logistics costs and facilitate the trade's further development. We intend to invite tender for operating the first two stations later this year.

Outlets for recyclables

21. Apart from providing the aforementioned land and funding support, the Government has also considered means to assist the recycling trade on outlets for recyclables. Every year, over 3 million tonnes of recyclable materials are recovered in Hong Kong and most are exported for recycling. For waste paper, export is primarily via Public Cargo Working Areas (PCWAs) to the Mainland. To provide further support to the recycling trade, the 2013 Policy Address has announced that the Government would consider identifying suitable PCWA berths for bidding by the recycling industry for their exclusive use so that there will be stable provision of export facilities.

22. The Government is also taking a lead to adopt a green procurement policy to boost the local demand for green and recycled products which is conducive to the development of the recycling trade. For example, the promotion of green procurement in public work projects has increased the demand for eco-concrete pavers that contain recycled glass and this is benefiting local recyclers who are engaged in waste glass collection and manufacturing of eco-concrete pavers or other suitable materials.

RECYCLABLES OF LOW COMMERCIAL VALUES

23. In general, recyclables of higher values such as scrap metals and waste papers are collected and processed by recyclers under open market forces and direct government assistance is not essential. However, recyclables of low values including waste plastics, glass bottles, WEEE and wood would require some assistance to make their collection and recycling viable.

24. For waste plastics and WEEE, the Government has provided funding through the ECF, for NGOs to operate recycling centres at EcoPark. There are also the above mentioned 15 ECF funded Community Recycling Centres operated by NGOs in 13 districts. These centres are located in old districts, providing waste-exchange service, collection of low value waste plastics from single-block buildings and baling of the collected waste plastics for bulk transport. In addition, the 48 community collection points set up and operated in various NGO premises in 15 districts also provide promotion materials and gifts to participants who bring recyclables to the collection point. All these centres and collection points support recycling efforts at community level including reaching out to the community and collection of low value recyclables from the public.

25. The Community Green Stations as described in paragraph 20 above will support recycling activities at the community level. This will include reaching out to the community to collect recyclable materials, supporting the CRN and launching other source separation initiatives.

26. For wood waste, at present, there are a small number of pallet manufacturers and recyclers, including one recycler operating at EcoPark, who refurbishes old pallets for reuse or shredding into wood chips for export for further recycling operation. In order to promote wood waste recycling activities in Hong Kong, the Government has been actively liaising with wood waste producers and collectors, including government departments, to encourage separation of wood waste at source and delivery of wood waste direct to EcoPark or other suitable recyclers for processing.

27. The Government will continue to implement various voluntary Producer Responsibility Schemes (PRSs) in collaboration with relevant trades (e.g. fluorescent lamps, computers and rechargeable batteries). With the direct participation of and funding from the trades, these schemes

not only provide free recycling service to the public and the trades but also encourage and boost the development of relevant logistics and recycling industries. For others like WEEE and glass beverage bottles, PRSs could facilitate waste generated in the territory to be recycled locally, resulting in an expansion of the scale of the existing recycling facilities. The Government is currently working on the introduction of mandatory PRSs on WEEE and glass bottles.

28. While recyclables collected through source separation programmes at residential or commercial premises are normally of better quality as there is simple sorting or screening by cleansing workers, recyclables from public waste separation bins are more vulnerable to contamination. This situation is more common for plastic waste. It only takes a small amount of food residues or drinks left in cups or bottles to contaminate the whole lot of recyclable materials in waste separation bins.

29. To enhance the quality of recovered materials, new publicity and promotion will continue to be rolled out in collaboration with property management companies to encourage residents to pay more attention in separation of recyclables at source. Notices will be placed on waste separation bins to show clearly the materials that can and cannot be recycled, and the need to avoid contamination of the sorted recyclables. More publicity campaigns will be launched to actively promote the proper use of waste separation bins in residential, commercial and industrial premises as well as public places.

STATUTORY MEASURES

30. The Government is progressively introducing mandatory PRSs. To encourage waste recycling and reduction, the Government has introduced the Product Eco-responsibility (Amendment) Bill 2013 into the Legislative Council to extend the PRS on plastic shopping bags, i.e. the Environmental Levy Scheme on Plastic Shopping Bags, to discourage the excess use of plastic bags and deepen the public awareness of waste reduction / recycling.

31. In parallel, the Government is preparing legislative proposals to introduce a new mandatory PRS on WEEE. This second scheme will be underpinned by a treatment plant to be developed at the EcoPark under the Public Works Programme through a Design-Build-Operate approach. The way forward of the third mandatory scheme, targeting at glass

beverage bottles, is being considered taking into account the feedback received during the three-month consultation in early 2013.

32. Based on the community's feedback received during the public consultation in 2011, the Government has affirmed the direction of introducing quantity-based MSW charging in Hong Kong and has invited the Council for Sustainable Development to conduct a public engagement exercise to explore the implementation details with the community. The implementation of the MSW charging will provide a much greater incentive for the community at large and businesses to separate all kinds of waste at source, which will in turn provide more recyclables materials for the recycling trade. MSW charging would also offer a financial incentive to the recycling trade to invest and develop further their business.

WAY FORWARD

33. FEHD will continue to closely monitor the contractor's performance and take stringent enforcement action for breach of the contract provisions

34. While a single contract covering the whole territory can achieve economy of scale, the performance of the contractor is far from satisfactory. FEHD is considering breaking up the bulk contract into several smaller contracts which will introduce more competition and enable better performance monitoring.

35. To address the contractor's claims that it has difficulties in finding suitable recyclers to receive the recyclables it collects, FEHD will work closely with EPD on the possible measures to help resolve the issue. The Government will also enhance publicity and education to raise public awareness of the type of recyclables suitable for recycling to facilitate the subsequent sorting and recycling operation.

36. To help drive a behavioral change towards "Use Less and Waste Less" under the Blueprint, EPD will step up efforts in mobilizing the entire community to participate in waste reduction, recovery and recycling. Apart from promotional and public education activities, EPD will work closely with all relevant sectors to set up more collection points in the community to facilitate active participation of the community and to further increase the amount of recyclables available for collection and processing by local recyclers.

37. More opportunities for local recycling are expected to increase with the implementation of the mandatory PRSs. The Government will continue to expedite the progressive implementation of mandatory PRSs, with priority accorded to WEEE and glass beverage bottles. More importantly, the implementation of MSW charging will provide a much greater incentive for the community and businesses to source separate all kinds of waste, which in turn will provide more recyclable materials for the recycling trade.

**Environment Bureau
Environmental Protection Department
Food and Environmental Hygiene Department
June 2013**

Summary of Community Recycling Network Collection Points
(As at May 2013)

Category	Types of collection points (with face-to-face promotion, waste-commodities/ souvenirs-exchange activities and/or recyclables transport)	Number
1	ECF supported Recycling Centres **	15
2	Collection points set up in NGO service centres **	48
3	Kowloon Bay Material Transfer Centre **	1
4	Schools - joined Source Separation of Waste & education programme with Recyclables Corner set up	290
5	Housing Authority PRH Estates - with regular waste-gift-exchange booth	160
6	Housing Society PRH Estates - with regular waste-gift-exchange booth	20
	Total no. of CRN Collection Points	534

** Note – detailed locations of the collection points can be found in the following website:
https://www.wastereduction.gov.hk/en/community/crn_outlet.htm

Funding Schemes Operated under the Environment and Conservation Fund

ECF-funded initiatives / funding schemes	Amount committed (\$ million)					
	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13 (up to Dec2012)
Environmental Campaign Committee Programmes	18.96	20.59	38.47	25.35	22.72	18.93
Environmental Education and Community Action -General Projects	0.68	1.42	7.34	6.11	23.21	3.6
Environmental Education and Community Action -Minor Works Projects	-	52.04	84.86	78.48	52.93	48.54
Nature Conservation Management Agreement Projects	6.82	0	9.63	0	14.79	7.77
Research, Technology Demonstration and Conference Projects	3.24	4.41	29.38	10.41	10.90	8.72
Waste Reduction and Recycling Projects	2.38	1.69	54.29	61.84	65.59	31.83
Energy Conservation Projects	-	-	84.09	232.70	132.31	105.98
Others (e.g. Public Education Programme under the "Policy Framework for the Management of Municipal Waste (2005-14), etc.)	2.95	3.63	42.25	13.24	13.45	3.3
Total:	35.03	83.78	350.31	428.13	335.9	228.67

**Innovation and Technology Fund
Distribution of Approved Projects among Different Industrial Sectors (as at 30/4/2013)***

Industrial Sector	Programme								Total	
	Innovation and Technology Support Programme		General Support Programme		University-Industry Collaboration Programme		Small Entrepreneur Research Assistance Programme			
	No. of approved project	Funds Approved (\$ million)	No. of approved project	Funds Approved (\$ million)	No. of approved project	Funds Approved (\$ million)	No. of approved project	Funds Approved (\$ million)	No. of approved project	Funds Approved (\$ million)
Biotechnology	173	415.9	7	4.4	55	95.9	39	60.7	274	576.8
Electrical and Electronics	437	2,301.7	6	4.4	42	39.9	99	114.8	584	2,460.9
Environmental	56	125.8	1	1.0	11	20.6	15	18.3	83	165.7
Information Technology	257	1,276.8	13	12.2	54	55.5	181	194.1	505	1,538.7
Foundation Industries	347	1,570.8	4	3.2	63	47.8	19	17.8	433	1,639.6
Textiles/Clothing/Footwear	101	420.4	1	0.4	5	3.3	4	3.2	111	427.3
General (Cross-sectors)	8	73.1	1241	413.1	1	0.4	1	0.9	1251	487.5
Others	36	93.2	10	17.0	2	1.6	10	8.3	58	120.1
Total:	1415	6,277.8	1283	455.7	233	265.0	368	418.1	3299	7,416.6

*Resources extracted from Innovation & Technology Fund's website: <http://www.itf.gov.hk/l-eng/StatView104.asp>

Remarks: ITF-funded projects related to recycling trade are highlighted in grey colour.