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23 December 2016 by email

Ms Angel Shek Clerk to Environmental Affairs Panel Legislative Council Complex 1 Legislative Council Road, Central, Hong Kong (aykshek@legco.gov.hk)

Dear Ms Shek,

# LegCo Panel on Environmental Affairs Implementation progress of the Hong Kong Blueprint for Sustainable Use of Resources 2013-2022

As part of the Government's follow-up action on the Public Account's Committee report No. 65 tabled at the Legislative Council on 17 February 2016 covering amongst other subjects the Government's efforts in managing municipal solid waste (MSW), we would like to update the LegCo Panel on Environmental Affairs (EA Panel) on the implementation progress of the Hong Kong Blueprint for Sustainable Use of Resources (2013-2022) (the Blueprint). Details are set out at **Annex**.

Members may also wish to know that the Environmental Protection Department (EPD) released, on 22 December 2016, the report on "Monitoring of Solid Waste in Hong Kong - Waste Statistics for 2015". The report summarises the latest situation of waste disposal and recovery in Hong Kong and has already been uploaded to EPD's website (<a href="https://www.wastereduction.gov.hk/en/assistancewizard/waste\_red\_sat.htm">https://www.wastereduction.gov.hk/en/assistancewizard/waste\_red\_sat.htm</a>).

At the EA Panel meeting on 25 January 2016, Members also requested the Government to provide statistics to illustrate how the development of the local recovery and recycling industries had been or would be fostered alongside the implementation of the various waste management initiatives under the Blueprint. In addition, the EA Panel asked for statistics on the actual or projected increase in output value and employment opportunities created.

In this regard, the Government has been implementing various initiatives to foster the development of the local recycling industry to promote a circular economy. Among other things, the \$1 billion Recycling Fund was launched in October 2015 to facilitate the recycling industry to upgrade its capacity and efficiency. As at November 2016, a total of 48 projects involving around \$54 As these projects are still at their initial million have been approved. implementation stage, we expect that it would take some time for their impact to take effect. Separately, the EPD has launched the Clean Recycling Campaign since 2015 seeking to increase the recovery quantities and the value of recyclables so as to enhance the efficiency of the operation of recycling businesses. Furthermore, the Government has been adopting a green procurement policy with a view to boosting the demand for recyclables, hence generating more business opportunities for the recycling industry as a whole. Under this policy, Government departments are encouraged to purchase green products and use recycled and other green materials in public works projects as far as practicable.

In relation to EA Panel's request for relevant statistics, Members may wish to note that the Census and Statistics Department publishes annually statistics on the economic contribution of four key industries and other selected industries which include environmental industries. The economic value-added contributed by environmental industries increased from \$7,103 million in 2013 to \$7,802 million in 2014 and \$7,891 million in 2015 i.e. an increase of about 11% in the past three years. Meanwhile, the employment opportunities created by the environmental industries rose from 40 650 in 2013 to 42 140 in 2014 and

43 750 in 2015, representing a cumulative growth of about 8% over the three-year period. We do not have further breakdown of individual business types (such as the local recovery and recycling business) under environmental industries.

Yours singerely

(HM Wong)

for Director of Environmental Protection

Encl.

## Implementation progress of the Hong Kong Blueprint for Sustainable Use of Resources (2013-2022)

## A) Policy development and legislation

## Quantity-based waste charging

## Municipal solid waste charging

- Based on the implementation framework recommended by the Council for Sustainable Development following an extensive public engagement exercise, we have been actively undertaking the preparatory work for introducing municipal solid waste (MSW) charging on various fronts in consultation with different stakeholders. We plan to introduce the enabling legislation into the Legislative Council (LegCo) in the 2016/17 legislative session.
- Meanwhile, the Environment and Conservation Fund (ECF) has earmarked \$50 million for funding community involvement projects to prepare various sectors and stakeholders for the implementation of MSW charging. More than 30 community involvement projects have been approved so far.

## Construction waste charging

- Following the approval of the relevant legislative amendment by the LegCo, the revised construction waste disposal charges will take effect from 7 April 2017.
- We will further review the construction waste disposal charges in the light of the MSW gate fee to be introduced having regard to the policy objective of driving behavioural change and the need to align the two charges.



## Producer responsibility schemes

## Plastic shopping bags

• Plastic shopping bag (PSB) charging was extended to the entire retail sector with effect from 1 April 2015. This has reduced the number of PSBs disposed of at landfills by some 25%. We will continue to monitor developments and arrange appropriate publicity and public education in order to sustain the impact of this measure.

## Waste electrical and electronic equipment

• In March 2016, the LegCo approved the Promotion of Recycling and Proper Disposal (Electrical Equipment and Electronic Equipment) (Amendment) Ordinance 2016 as the enabling legislation for the Product Responsibility Scheme (PRS). Preparatory work is in progress and we expect to implement the PRS by phases in 2017/18. Amongst other things, the construction of the Waste Electrical and Electronic Equipment Treatment and Recycling Facility (WEEETRF) in the EcoPark is making good progress and is scheduled for commissioning in mid-2017. We also plan to introduce subsidiary legislation on the operational details of the PRS into the LegCo in 2017.

## Glass beverage bottles

• In May 2016, the LegCo approved the Promotion of Recycling and Proper Disposal (Product Container) (Amendment) Ordinance 2016, as the enabling legislation for this PRS. Preparatory work is in progress and we expect to implement this PRS by phases in 2017/18. Amongst other things, we have been progressively expanding the glass collection network, which now covers over 70% of the population. We plan to conduct an open tender exercise in early 2017 to procure the collection and treatment services required under this PRS, and introduce the subsidiary legislation on the operational details into the LegCo in 2017.



## Others (e.g. rubber tyres, wood, packaging materials, rechargeable batteries)

• We will review the need and practicability for introducing PRSs for other products as mentioned in the Hong Kong Blueprint for Sustainable Use of Resources (2013-2022).

## Other policy incentives

#### **BEAM Plus**

The Development Bureau and the Environment Bureau updated the circular on "Green Government Buildings" in April 2015 with a view to enhancing the green performance of Government buildings. The circular stipulates that, among other requirements, new Government buildings with construction floor area of more than 5 000m2 with central air-conditioning have to obtain the second highest grade or above under the BEAM Plus or other internationally recognised building environmental assessment. Government buildings which serve as landmarks or are of iconic nature should consider achieving the highest grade under the assessment system irrespective of their sizes. The circular also provides a comprehensive target-based green performance framework covering waste management as well as other environmental aspects for reference by Government bureaux and departments. As at December 2016, about 100 Government building projects have been registered under BEAM Plus certification, and 18 of them have achieved final platinum / provisional platinum ratings while another 15 have achieved final gold / provisional gold ratings.

## Green procurement

• In 2015, we expanded the Government's green procurement list from 103 items of green products and services to 150 items with updated green specifications. We also updated the Government's green procurement circular and organised a series of seminars for the procurement officers of various Government bureaux and departments. In 2015, the Government spent over \$1 billion on green procurement. Among various green products, the Government consumed in 2015 over 3 800 tonnes of B5 diesel (a blend of 5% biodiesel and 95% regular diesel) in replacement of convention diesel, contributing to the recycling of around 210 tonnes of locally-generated waste cooking oil. The Government has also been promoting a wider use of

recycled materials and other green products in public works and housing projects. On average, about 200 000m2 of eco-pavers made from about 4 000 tonnes of recycled glass aggregates were used in public road works each year from 2011 to 2015.

## B) Social mobilisation

#### Reduction in food waste

#### Food Wise

- To promote community awareness about food waste reduction, we have carried out various activities under the Food Wise Hong Kong Campaign, including roving exhibitions, and publicity through Big Waster Facebook as well as TV and radio announcements, etc.
- As at November 2016, about 630 local organisations and companies have signed the Food Wise Charter and pledged to reduce food waste. Besides, about 750 eateries have enrolled in the Food Wise Eateries Scheme and pledged to, among other things, offer portioned meals to customers according to their appetite. In addition, we have been providing tailored-made training sessions to schools, commercial sectors and hotels, etc. on food waste avoidance and reduction. We have also issued six Food Waste Reduction Good Practices Guides for different sectors/ settings, including markets, schools, food and beverage industry, hotels, residential buildings and shopping malls, providing practical tips on avoiding and reducing food waste.

## Food waste recycling

• The ECF is supporting Food Waste Recycling Projects in residential estates with \$50 million earmarked. As at November 2016, we have granted funds to 30 housing estates engaging some 3 400 households in on-site food waste recycling activities. The message on food waste reduction and source separation would be able to reach over 63 000 households through relevant education and promotional activities.



- Since the launch of the Food Waste Recycling Partnership Scheme in June 2010, over 250 commercial and industrial (C&I) establishments and their front-line staff have received training on food waste source separation and collection, and over 2 400 tonnes of food waste have been collected for treatment and recycling at the Pilot Composting Plant at the Kowloon Bay Waste Recycling Centre.
- The ECF also supports non-profit making organisations to collect surplus and edible foods from markets, retail shops and food wholesalers for distribution to the needy in the community. As at September 2016, 20 surplus food recovery projects have been approved involving funding support of about \$32 million for the collection of about 2 300 tonnes of surplus food for donation to about 1.9 million headcounts.

#### **ECF**

## Support community mobilisation projects

• As a long-term commitment to environmental protection and conservation, the Government injected \$5,000 million in 2013 to the ECF. In 2015/16, the ECF financed 192 projects, with a total commitment of about \$180 million on waste reduction and recycling (including food waste and surplus food recovery), energy saving, environmental research projects and environmental education projects.

## Community collaboration

## <u>Industry stakeholders</u>

• The Steering Committee to Promote the Sustainable Development of the Recycling Industry (Steering Committee) under the chairmanship of the Chief Secretary for Administration was set up in 2013. Among various initiatives promulgated by the Steering Committee to facilitate development of the recycling industry, we have launched the \$1 billion Recycling Fund in October 2015 to facilitate the recycling industry to upgrade its operational capabilities and efficiency. As at November 2016, 48 projects involving funding of around \$54 million have been approved.



 We have launched a Clean Recycling Campaign since 2015 with a view to promoting waste source separation and cleaning of recyclables at the community level. The campaign aims to drive behavioural change in order to increase the quality, quantity and value of the source separated recyclables, thereby enhancing the efficiency of the operation of recycling businesses and turning more waste into resources.

#### **District Councils**

• Since 2012, the 18 District Councils (DCs), the Home Affairs Department, the EPD and the Environmental Campaign Committee have been collaborating to implement the Community Participation Programme to jointly promote environmental protection at the district level. In 2015/16, the EPD provided \$3.5 million to the DCs for implementing district promotional activities on waste reduction and recycling. Over 37 local organisations and non-profit-making organisations were invited to co-organise the activities participated by more than 100 000 members of the public.

## C) Investing in infrastructure

#### Recycling infrastructure

#### Community Green Stations (CGSs)

• The first two CGSs in Sha Tin and Eastern District commenced services in 2015, and three CGSs in Kwun Tong, Yuen Long and Sham Shui Po will commence operation in early 2017.

## Public Cargo Working Areas (PCWAs)

• In 2016, we designated 16 berths in PCWAs for exclusive bidding by paper recyclers to ensure they have adequate export facilities and stable outlets. 13 berths were allocated for a period of five years.



## Waste separation and collection system

- Up to December 2016, more than 2,000 housing estates/buildings and 980 C&I buildings have joined the Source Separation of Waste (SSW) Programme, covering around 80% of the population in Hong Kong. With the support of the ECF, we have also established a Community Recycling Network (CRN) to provide recycling support for residents living in buildings not provided with waste separation facilities. We will continue to keep the SSW Programme and the CRN under review and identify enhancement measures to cope with the increased demand for recycling support when the MSW charging is in place.
- The Steering Group on the Modification of Recycling and Refuse Collection Facilities in Public Places (Steering Group) chaired by the Secretary for the Environment was set up in February 2016 to review the number, distribution and design of the recycling bins (RBs) and litter containers (LCs) in public places to facilitate waste reduction and resource recovery in the community. A consultancy study on the review of the number and distribution of the RBs and LCs in public places has recently been completed. The Consultant has recommended that the number of RBs be increased and that of LCs be reduced having regard to the successful experience of other major cities in implementing MSW charging. It has also put forward some general planning parameters for the future provision and design of such facilities. The Steering Group will commission a second-stage consultancy study to review the design of recycling facilities and LCs in public places.

## Recovery infrastructure

Waste Electrical and Electronic Equipment Treatment and Recycling Facility (WEETRF)

• In February 2015, the LegCo Finance Committee approved the funding requirement for the WEEETRF and the design, build and operate contract was subsequently awarded in May 2015 based on the outcome of an open tender. The WEEETRF is scheduled for commissioning in mid-2017.



## **Sludge Treatment Facility (STF)**

• The STF commenced operation on 1 April 2015. It was officially named as T·PARK at the Grand Opening Ceremony on 19 May 2016. The recycling treatment processes comprises sludge reception, sludge incineration, flue gas treatment and energy recovery. As at mid-December 2016, local and overseas visitors made over 37 000 visits to the Environmental Education Centre (EEC) since its commissioning in June 2016.

## Food Waste-Sewage Sludge Co-digestion Pilot Trial

 We plan to commission a food waste-sewage sludge co-digestion pilot trial to make use of the existing sewage sludge anaerobic digestion system at the Tai Po Sewage Treatment Works to recycle up to 50 tonnes of food waste per day into energy. Tenders for the pilot project will be invited in the first half of 2017 for commissioning the facilities in 2018.

## Organic Waste Treatment Facilities (OWTFs)

- The first phase of OWTF situated at Siu Ho Wan of North Lantau is currently under construction. It is scheduled for full commissioning by the end of 2017.
- We have been liaising with major C&I stakeholders for delivering separated food waste from their establishments, including shopping malls, hotels and wet markets, to the OWTF Phase 1 upon its commissioning. We have also been exploring with the Food and Environmental Hygiene Department and the Housing Department, on a trial basis, to separate at source, collect and deliver food waste generated from C&I establishments under their management e.g. markets, cooked food venues and shopping malls, to the OWTF Phase 1.
- The OWTF Phase 2 in Sha Ling of the North District is planned for commissioning in 2021. The tendering process will commence by the end of 2016. Besides, the Government has reserved a piece of land in Shek Kong, Yuen Long for the development of the OWTF Phase 3. We plan to commence the relevant environmental impact assessment and engineering feasibility study in 2017. We will continue to look for suitable sites for building more OWTFs.



#### Integrated Waste Treatment Facilities (IWMF)

• We obtained funding approval for the IWMF from the LegCo Finance Committee in January 2015 and completed the prequalification exercise in the same year. The tender invitation for the Design-Build-Operate contract from the pre-qualified tenderers was issued in November 2016. The facility is planned for commissioning in 2023-24.

## Disposal infrastructure

#### **Landfill extensions**

• In December 2014, the LegCo Finance Committee approved the funding for the extensions of South East New Territories (SENT) and North East New Territories (NENT) landfills, as well as the consultancy for the extension of West New Territories (WENT) Landfill. Subsequently, the EPD has commenced the contract procurement procedures for the SENT and NENT extension projects as well as the design and site investigation studies for WENT extension project. With the extensions of the SENT Landfill and NENT Landfill in place, we estimate that the landfill space could cope with Hong Kong's waste disposal needs up to late 2020s.