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26 September 2014

Clerk to Finance Committee
Legislative Council Secretariat
Legislative Council Complex
1 Legislative Council Road
Central
Hong Kong
(Attn: Mr. Andy LAU)

Dear Mr. LAU,

Legislative Council Finance Committee
Follow-up to meeting on 11 July 2014
5172DR – Organic waste treatment facilities phase 1

At the FC meeting held on 11 July 2014, Members raised concern about the cost of the organic waste treatment facilities phase 1 project and other related food waste treatment issues. We now submit supplementary information at the **Annex** in response to Members' concerns. Grateful if you could circulate it to Members for their reference.

Yours sincerely,

(Elvis W K AU)
Assistant Director
for Director of Environmental Protection

Encl.

c.c. Secretary for Financial Services and the Treasury (Attn: Ms. Jasmine S Y CHOI)
(Fax: 2147 5240)

Annex

Meeting of Finance Committee held on 11 July 2014
Supplementary Information

5172DR – Organic waste treatment facilities phase 1

Purpose

At the Finance Committee meeting on 11 July 2014, Members discussed the proposed organic waste treatment facilities (OWTF) phase 1 (PWSC(2014-15)1. This paper provides the supplementary information on cost issues raised by the Members. In addition, the Administration's responses to other related food waste treatment issues are given in the **Appendix**.

Could the Government explain why the construction of OWTF phase 1 costs $1,500M, while it was said only $300M would be needed for a private sector proposal?

2. The Environment Bureau noted an idea from a private company that it could make use of a piece of Government land of about 8,000 m^2 adjacent to Tai Po Industrial Estate for the private company to develop a food waste treatment plant to recycle 200 tonnes of food waste per day into biogas (see also paragraph 5 about the estimation of treatment capacity,). According to the information provided by the concerned party, the estimated construction cost was around $300 million.

3. The Environment Bureau and the Environmental Protection Department had met with the proponent to learn about the details of the idea. We understand from the meeting that the private company has initially explored the viability of setting up such a treatment facility at the Tai Po Government site. Nonetheless, the private company indicated that the idea could similarly be pursued at other available sites of suitable size that are connected or close to the existing gas pipes. At present, given that the idea is at the preliminary and conceptual stage, no detailed feasibility studies or environmental impact studies have been conducted for the Tai Po Government site or any other sites. While a ballpark construction cost figure of around $300 million was estimated some years ago for some key treatment

components including waste reception facilities, pre-treatment facilities, anaerobic digestion facilities, and biogas cleaning and storage system, etc, the ballpark estimate has not included the cost for other supporting facilities such as geotechnical engineering works, wastewater treatment, environmental and pollution control systems, digestate treatment facilities (i.e. composting facilities that convert digestate to compost products in the OWTF design), equipment for complying with fire services and safety requirements, environmental mitigation measures for construction works, and other ancillary facilities (eg. for waste handling/vehicle washing, office buildings etc). After anaerobic digestion, the digestate would have to be disposed of at landfills. In addition, the ballpark figure has not made provision for the possible demolition and re-provisioning of the existing Government facilities at the proposed Tai Po site. Up to this stage, no cost breakdown is available from the private company for more detailed evaluation.

4. The OWTF phase 1 project, which is now awaiting approval of the Finance Committee, has undergone detailed planning procedures and has been endorsed by the Legislative Council Panel on Environmental Affairs and the Public Works Subcommittee. Siu Ho Wan was confirmed to be the site for OWTF Phase 1. The current project estimate is based on the returned tender prices of an open tendering exercise to reflect the latest market price for the construction of this facility. Given that this project and the above mentioned conceptual idea by a private company are at different planning stages and that there are differences in project details and cost estimation basis (including the site location and area, treatment process, residual wastes treatment, ancillary facilities and treatment capacity, etc), both the private company and we consider that it would not be appropriate to directly compare the ballpark figure with the current project estimate of OWTF phase 1. Nonetheless, we have analyzed and presented in the following paragraphs several key differences between OWTF Phase 1 and the private sector proposal.

Site Location and Treatment Capacity

5. The proposed OWTF phase 1 has a treatment capacity of 200 tonnes per day and is located at Siu Ho Wan in North Lantau with a site area of approximately 2.2 hectares, while the private sector proposal is to build a food waste treatment plant at a Government site of about 8,000 m^2 at the Drainage Services Department's existing leachate pre-treatment plant serving the restored Shuen Wan Landfill adjacent to the Tai Po Industrial Estate. This

site is still required for pre-treatment of the leachate. Our initial assessment shows that only part of the Tai Po site (about 2,000 m^2) could be vacated, which would only be adequate for accommodating an anaerobic treatment facility with a capacity of about 30 to 90 tonnes per day.

Treatment Process

6. There is only one food waste treatment process in the private proposal, i.e. anaerobic digestion, and the digestate, which amounts to 10% of the food waste treated, has to be disposed of at landfills. In contrast, there are two food waste treatment processes in the OWTF's design, i.e. anaerobic digestion process and a composting process to convert digestate to compost products. All anaerobic digestate would be transformed into stable and useful compost products and therefore it will not put extra pressure on landfills.

Anaerobic Digestion System Cost Estimate

7. In the private proposal, it is composed mainly of a waste receiving system, a pretreatment system, anaerobic digestion system and a biogas cleaning and storage system, and the concerned party indicated that the total investment estimated some years ago was about $300 million. These systems are also included in OWTF phase 1 and the total cost for these items is estimated at $241.6M in September 2014 prices, including waste receiving system ($93.1M), pre-treatment system ($56.2M), anaerobic digestion system ($67.9M), and biogas cleaning and storage system ($24.4M).

How much is the total investment in the next 20 years? Is it considered expensive to spend $1,500M on an organic waste treatment facility with a treatment capacity of 200 tonnes per day?

8. We estimate that the annual recurrent expenditure arising from the proposed OWTF phase 1 to be about $72.4 million, equivalent to about $992 per tonne of repair, maintenance and operation costs comprising (i) waste receiving, pre-treatment, anaerobic digestion, biogas cleaning and storage systems (about $546 per tonne); (ii) composting system (about 109 per tonne); (iii) power generation and surplus electricity export systems (about $99 per tonne); and (iv) fire services, environmental and pollution control systems (about $238 per tonne). It should be noted that under the OWTF phase 1 contract, the contractor shall have the obligation to repair, renew, replace the major systems during the operation period and ensure the major systems to

have a residual service life of at least 5 years at the expiry of the operation period of 15 years. The cost of such repair, renewal and replacement is included in the operation cost of OWTF phase 1. In the private proposal, it is mainly composed of a waste receiving system, a pretreatment system, anaerobic digestion system and a biogas cleaning and storage system. We have not received the detailed operation cost breakdown of the private sector proposal. Nevertheless, according to the information provided, the estimated operation cost of these systems for OWTF phase 1 is about $546 per tonne.

Is the design and development of OWTF phase 1 cost-effective?

Choice of Technology

9. The choice of treatment technology was thoroughly studied in the feasibility study. The study has confirmed that the recommended treatment technologies, i.e. anaerobic digestion and composting, are justified on the grounds that it is in line with latest international practices, and is consistent with the policy of sustainable use of resources, maximization of energy and material recovery, and minimization of landfilling as stipulated in the "Hong Kong: Blueprint for Sustainable Use of Resources 2013-2022". Anaerobic digestion and composting can turn food waste, which is a source of renewable energy, into energy and good quality compost, reduce landfilling, and reduce greenhouse gas emission. The OWTF phase 1 proposal has been endorsed by the relevant District Councils, the Legislative Council Panel on Environmental Affairs and the Public Works Subcommittee. This project estimate is based on an open tender exercise through open and competitive bidding without prequalification, and hence the tender prices returned have already reflected the latest market prices for the construction of the proposed facility.

Private Public Participation

10. Hong Kong needs to build a network of OWTFs in order to meet the target of reducing food waste disposal at landfills by 40% by 2022. We envisage Hong Kong needs to build a network of around five to six OWTFs with a total recycling capacity of about 1,300-1,500 tonnes per day. Currently, there are individual private food waste treatment plants with relatively small treatment scale in Hong Kong. Recently, there is also a tenant in EcoPark who has invested in building a plant with an estimated initial treatment capacity of 100 tonnes per day to collect food waste treatment for recycling into fish

feed. The plant construction is near completion and the tenant indicates that preparation for operation is being arranged.

11. We welcome the private sector to participate in the development of further organic waste recycling and are willing to communicate with private companies on the details of their idea. For the above-mentioned idea concerning the Tai Po site, we have met with the private company and shared our preliminary analysis and views. We have also informed the private company and concerned party that if they have any further specific recommendations on the idea, we are willing to consider appropriate follow-up works in an open and proactive manner and examine them from the perspectives of public finance, the existing policy, the speeding up of food waste treatment and the alleviation of pressure on landfills, etc.

Environment Bureau
Environmental Protection Department
September 2014

Appendix

Other Questions Raised by the Members and the Responses Provided by the Administration

Does the Government have plan to implement comprehensive food waste separation and recycling, and how will the Government tackle the food waste problem at source? Given that only a limited amount of food waste could be treated at the OWTF phase 1, how many OWTF does the Government plan to build? How much food waste is expected to be treated? Will it result a mismatch between development and demand?

Comprehensive Food Waste Management Strategy

1. Approximately 9,000 tonnes of municipal solid waste (MSW) are thrown away at landfills every day, in which some 3,000 tonnes are food waste. The Environment Bureau in February 2014 unveiled "A Food Waste & Yard Waste Plan for Hong Kong 2014-2022" (the Plan), which analyses the current situation of food waste and yard waste in Hong Kong, and maps out a comprehensive strategy, targets, policies and action plans for the management of such waste in the coming years with a view to tackling the challenge faced in Hong Kong. The Plan outlines a target of reducing food waste disposal to landfills by 40% in 2022 in Hong Kong. The Government has mapped out four strategies as the backbone in order to face the challenge of food waste, namely reduction at source, recuse and donation, recyclable collection, and turning food waste into energy.

Avoid and Reduce Food Waste at Source

2. To promote public awareness of the food waste problem in Hong Kong and instill behavioural changes in various sectors of the community with a view to reducing food waste generation, the Environment Bureau set up the Food Wise Hong Kong Steering Committee in December 2012 to drive leadership in food waste avoidance and reduction. The Campaign was officially launched in May 2013. The campaign has a variety of activities and is designed to galvanize the community, from individuals to households to commercial and industrial (C&I) operators, to avoid and reduce food waste at source. There is sympathy within the community to avoid food waste. With strong and sustained public communication, and with the commitment of the C&I sector, we can make food waste avoidance a core Hong Kong value – that

is, it becomes a fundamental aspect of our lifestyle. By encouraging a new "Food Matters" culture, it can help Hong Kong's catering and hospitality C&I sector, as well as the community as a whole, to innovate.

Support Food Donation

3. We have been encouraging the trade and business to donate surplus food to the needy through food bank or food donation programme, so as to provide them adequate food supply and balanced nutrition, also to reduce their financial burden. In this regard, the Government plays an active role, through the Social Welfare Department, to match the NGOs who participate in food waste recycling and the needy to ensure the resources could be fully utilized. We will strengthen our support of the work of NGOs to increase the collection of surplus food from the C&I sector, such as supermarkets, fresh food markets, restaurants, clubs and hotels. NGOs may consider applying for the Environment and Conservation Fund (ECF) to support food donation projects that could help reduce waste to landfill.

Implement Food Waste Collection and Delivery

4. We will commence a detailed consultancy study on the appropriate means, mechanism and mode of source-separated food waste collection and delivery in Hong Kong in 2015. We will develop a practical territory food waste collection and delivery plan to cope with the commissioning of OWTFs network. Our view is to take a similar approach of overseas examples (like South Korea) – get the wheel in motion on food separation and iron out the details step by step with the community first.

Food Waste Collection and Development of OWTFs

5. With reference to the experience from other cities, we estimate that about 50% of food waste could be source separated and collected for treatment. It will take some years before Hong Kong has the recycling capability to deal with approximately 50% of the city's food waste. When public and C&I sectors actively participate in source separation but recycling capability could not be completely cope with, there could well be a mismatch between public expectation to participate in food waste separation schemes and the availability of treatment capacity. Before having adequate food waste recycling facilities, food waste has to be disposed of with other MSW. We will continue our educational activities on food waste reduction and recycling in community and housing estates, and lay a solid foundation for food waste separation at source.

In the short run the Government will continue to encourage members of the community to make behavioural changes and try their best to treasure and make good use of food resources to avoid food waste generation. The Government will also continue to support food waste recycling and relevant projects through the ECF as far as possible to encourage and educate members of the public to cultivate a habit of separating food waste. More importantly, such food waste recycling actions could raise public awareness on the quantity of food waste generated and demonstrate that there is room for food waste reduction at source, thereby encouraging people to treasure food.

Food Waste Recycling

6. The Government plans to develop more OWTFs in different districts for collecting and recycling source separated food waste. It is envisaged that Hong Kong needs to build a network of around five to six OWTFs with a total treatment capacity of 1,300 to 1,500 tonnes per day. OWTF phase 1 is expected to be commissioned in 2017 and the EIA study for OWTF phase 2 has been completed. The Government has also identified a suitable site for constructing OWTF phase 3 and the EIA study for the project will be taken forward shortly.

Will the Government subsidize private buildings or estates to install composting machine?

Funding Support to Estates for Installation of Composting Machine

7. Through the ECF, "Food Waste Recycling Projects in Housing Estates" was rolled out in July 2011 to subsidize installation and operation of on-site food waste treatment facilities at participating housing estates. Housing estates are encouraged to hold education and promotion programmes to engage resident's active participation and raise their awareness of food waste recycling. The ECF has set aside $50 million for this scheme and it is estimated that about 50 housing estates could participate in the scheme. The subsidized lease period is 24 months. As of August 2014, 39 of them have received funding under the ECF to install composters at the estates for source-separated food waste recycling. Education programmes organized by these estates would cover about 89,000 households, of which about 4,400 would participate in food waste source separation and recycling. It is expected that a total of 1,400 tonnes of food waste (i.e. about 4 tonnes per day) would be recycled each year and 280 tonnes of compost would be produced

annually, which can be used as fertilizers by the estates for their plants and gardens.

Emphasis on Food Waste-to-energy

8. On-site recycling of food waste into compost is not the most suitable solution in Hong Kong because of cost-effectiveness and limited demand of compost products. Our plan is to develop a network of OWTFs with due speed to recycle food waste mainly into renewable energy because Hong Kong can use large quantities of energy either in the form of biogas or electricity.

What would be the logistic arrangement for food waste collection? Can we make use of interim collection points to lower the collection cost? Would the Government consider to make use of refuse collection points managed by the Housing Department and the Food and Environmental Hygiene Department for interim collection? Has the Government considered the collection, logistics and cost issues?

Food Waste Collection and Delivery

9. In light of the fact that Hong Kong generates a very large amount of food waste each day, and that food waste in general decomposes quickly and is unsuited to compaction at RTS for long-haul transport, the most suitable method to recycle food waste is to create a network of recycling plants. This approach enables food waste to be transported quickly from population centres to the facilities that are not too far away thereby reducing potential nuisance. Transporting food waste requires special attention. Food waste collection vehicles are needed to ensure there is no leakage or odour. In future the vehicles will likely be different from the ones operating in Hong Kong today transporting MSW. Thus, a new fleet of food waste vehicles will need to be used or the existing fleet will need to be upgraded. Currently, C&I establishments are responsible for delivering their waste either to refuse transfer stations (RTS) or landfills. Our plan is for C&I establishments to be responsible for separating their food waste from their other MSW and deliver the separated food waste to the recycling facilities.

10. The collection of food waste from domestic sources is more challenging than for C&I establishments because there are many types of residential dwellings. We will initiate a study on the food waste collection and delivery in 2015 to consider the different types of circumstances in Hong

Kong, including dwellings with/without storage space for separated food waste, the conditions of C&I buildings, the collection and delivery arrangement, the suitable types of vehicles, appropriate ancillary and supporting facilities for any onsite interim storage, the appropriate arrangement for prioritization in the collection and delivery of food waste as well as the social, institutional and resource implications. The study scope will include the feasibility of utilizing the existing government facilities such as refuse collection points and RTS to enhance the effectiveness of food waste collection and delivery and its potential synergy.

Will the operation of OWTF phase 1 cause any environmental impact and odour nuisance to the surrounding? What kind of measures could minimize the impact during food waste delivery?

Environmental Impact Assessment

11. The OWTF phase 1 is a designated project under the EIA Ordinance and an environmental permit (EP) is required for its construction and operation. The EIA report was approved under the EIA Ordinance on 24 February 2010. The EIA Authority issued the EP for the project on 21 June 2010. The project would comply with the established standards stipulated under the EIA Ordinance. The EIA study covered various aspects such as air quality, hazard to life, waste quality, noise, waste management, landscape and visual impacts. The EIA report concluded that, with the implementation of recommended mitigation measures, the project would comply with the requirements stipulated under the EIA technical memorandum.

Odour and Treatment

12. During the operation, the air extracted from the main buildings, including the waste reception area, pre-treatment system, composting system and wastewater treatment system, would be passed to the central air pollution control unit to remove air pollutants, dust and odourous gas. A stack monitoring unit would be installed to ensure that air emissions from OWTF phase 1 during operation will meet the design emission limits and EPD criteria. The EIA study also recommended conducting odour patrol at the site boundary during the operation to ensure that there is no odour impact to the vicinity. There is no nearby residential development. The nearest residential development is Discovery Bay, which is about 1.5 km away from the project site and is substantially screened by natural terrain.

Measures to Minimize Odour during Food Waste Delivery

13. Transporting food waste requires special attention. Food waste collection vehicles are needed to ensure there is no leakage or odour. In future the vehicles will likely be different from the ones operating in Hong Kong today transporting MSW. Thus, a new fleet of food waste vehicles will need to be used or the existing fleet will need to be upgraded. We will commence a detailed consultancy study in 2015 on the appropriate means, mechanism and mode of source-separated food waste collection and delivery in Hong Kong. We will develop a practical territory food waste collection and delivery plan to cope with the commissioning of OWTFs network.

Would the OWTF phase 1 cause any traffic impact? How would the Government deal with it?

No Adverse Impact to the Traffic

14. The cumulative traffic impact has been studied in detail under the OWTF phase 1 feasibility study. The proposed OWTF site at Siu Ho Wan is accessible via Cheung Tung Road and Sham Fung Road adjacent to the North Lantau Highway. It is estimated that about 50 nos. of refuse collection vehicles per day (i.e. 100 nos. of trip) entering/leaving the OWTF during the operation. The impact of the additional traffic generated from the project to the existing road network in Lantau, including Cheung Tung Road, is minimal.

Restaurants and the trade need to pay the private recyclers for food waste recycling, while the Government would provide free collection and treatment service. Will it affect development and survival of the private recyclers? How does the Government avoid competing with private business? Noted that limited amount of food waste could be processed at OWTFs and some people could enjoy the free services from Government while some have to pay for private treatment, how could the Government avoid unfair situation?

C&I Establishments Responsible for Food Waste Delivery

15. Currently, C&I establishments are responsible for delivering their waste either to refuse transfer stations (RTS) or landfills. Our plan is for C&I establishments to be responsible for separating their food waste from their other MSW and deliver the separated food waste to the recycling facilities.

Before having adequate food waste recycling facilities, food waste has to be disposed of with other MSW. We will continue our educational activities on food waste reduction and recycling in community and housing estates, and lay a solid foundation for food waste separation at source. In addition, we will commence a detailed consultancy study in 2015 on the appropriate means, mechanism and mode of source-separated food waste collection and delivery in Hong Kong. We will develop a practical territory food waste collection and delivery plan to cope with the commissioning of OWTFs network.

Private Food Waste Recycling Project

16. Development of the EcoPark is one of the Government's initiatives to provide long-term land at affordable rent for the development of the recycling industry in Hong Kong with a view to encouraging investment in advanced technology and value-added recycling processes. In August 2012, a land lease contract for a lot at EcoPark was awarded by EPD to South China Reborn Resources (Zhongshan) Co Ltd for recycling food waste into high protein content feed for livestock farming and aquaculture. The company plans to develop at least two production lines with a treatment capacity of 100 tonnes food waste per day. It is expected to start operation later and at least 2,800 tonnes of food waste could be processed per month.

Private Participation

17. Hong Kong needs to build urgently a network of OWTFs with due speed in order to meet our disposal at landfill reduction target of 40% by 2022. We envisage Hong Kong needs to build a network of around five to six OWTFs. We welcome the private sector to participate in the development of further OWTFs. We are open to options and proposals from the private sector either on sites identified by the Government or other sites proposed by the private sector.

What are the food waste sources of OWTF phase 1? How would the problem of insufficient food waste be tackled?

Food Waste Sources of OWTF phase 1

18. The Administration started to explore suitable sites for OWTF in 2006. Siu Ho Wan was confirmed a suitable site on the basis of various factors such as transport accessibility, planning and land use compatibility, etc. The OWTF phase 1 will provide treatment for source separated organic waste

from the C&I establishments located in districts near Siu Ho Wan, such as Lantau Island, Tsuen Wan, Kwai Tsing, Sham Shui Po, Yau Tsim Mong and Kowloon City. It is anticipated that these C&I establishments would include hotels, food processing establishments, restaurants, shopping malls, food catering services provided for airlines and wet markets managed by Food and Environmental Hygiene Department and the Link.

Sufficient Amount of Food Waste for Treatment

19. In preparation for recycling food waste on a large scale, the Administration has gained experience on food waste source separation and collection over the past few years through the Food Waste Recycling Partnership Scheme ("the Partnership Scheme") launched by the Environment Bureau together with the C&I sector in June 2010 with a view to promoting good food waste management practice and gaining experience in food waste source separation and recycling. The participating organizations have responded positively that they would deliver their food waste to OWTF phase 1 as far as possible when the facilities begins operation. We expect that OWTF phase 1 would reach its design capacity in a short time after commissioning, in which about 50% of food waste would come from markets and cooked food centres managed by the Food and Environmental Hygiene Department and the Link.

What are the food waste delivery routes of OWTF phase 1?

20. For the food waste delivery routes, please refer to **Table 1**.

At this stage, is there any mechanism for the restaurants and food factories within the OWTF phase 1 catchment to carry out food waste source separation? In the Food Waste Recycling Partnership Scheme, how many participants are located within the OWTF phase 1 catchment?

Promotion of Food Waste Source-separation in C&I Sector

21. In preparation for recycling food waste on a large scale, we have gained experience on food waste source separation with the C&I sector over the past few years through the operation of the Kowloon Bay Pilot Food Waste Composting Plant and the Food Waste Recycling Partnership Scheme. The plant was initially used in 2008 to treat food waste from the venues hosting the Olympic and Paralympic Equestrian Games, followed by the Partnership

Scheme with C&I participants to collect source-separated food waste for delivery to the Kowloon Bay plant. Today, the scheme has over 150 participants and food waste treated at the pilot plant has increased from 40 tonnes in 2008 to about 300 tonnes in 2013.

Participants in the Food Waste Recycling Partnership Scheme

22. A list of Food Waste Recycling Partnership Scheme participants within the OWTF phase 1 catchment is at **Table 2**.

Table 1

Organic Waste Treatment Facilities Phase 1
Food Waste Delivery Route

District	Route	Estimated Number of Vehicles for Food Waste Delivery (per day)
1. Tung Chung/ Airport	Cheung Tung Road-> Siu Ho Wan	5
2. Tsuen Wan	Tsing Tsuen Road-> Tsing Yi North Coastal Road-> Tsing Ma Bridge-> North Lantau Highway-> Sunny Bay Road-> Cheung Tung Road-> Siu Ho Wan	7
3. Kwai Tsing	Kwai Tsing Road-> Tsing Kwai Highway-> Cheung Tsing Tunnel-> Cheung Tsing Highway-> Tsing Ma Bridge-> North Lantau Highway-> Sunny Bay Road-> Cheung Tung Road-> Siu Ho Wan	8
4. Sham Shui Po	West Kowloon Express-> Tsing Kwai Highway-> Cheung Tsing Tunnel> Cheung Tsing Highway-> Tsing Ma Bridge-> North Lantau Highway-> Sunny Bay Road-> Cheung Tung Road-> Siu Ho Wan	8
5. Yau Ma Tei, Tsim Sha Tsui, Mong Kok	West Kowloon Express-> Tsing Kwai Highway-> Cheung Tsing Tunnel-> Cheung Tsing Highway-> Tsing Ma Bridge-> North Lantau Highway-> Sunny Bay Road-> Cheung Tung Road-> Siu Ho Wan	16
6. Kowloon City	Prince Edward Road West->Lai Chi Kok Rd -> West Kowloon Express-> Tsing Kwai Highway-> Cheung Tsing Tunnel-> Cheung Tsing Highway-> Tsing Ma Bridge-> North Lantau Highway-> Sunny Bay Road-> Cheung Tung Road-> Siu Ho Wan	6
	Total (per day)	**50 nos.**

Table 2

Food Waste Recycling Partnership Scheme

Participants from Year 2010 to 2014

District	Participants	Quantities
1. Tung Chung/ Airport	Cathay Pacific Catering Services (CPCS)	1
2. Tsuen Wan	Discovery Park Commerical Service Ltd. Chao Dynasty (Discovery Park) Cheung Lung Restaurant (Discovery Park) Classic in Shun Tak (Discovery Park) Delifrance (Discovery Park) Federal Palace Restaurant (Discovery Park) Maxim's (Discovery Park) McDonald's (Discovery Park) Pokka Café (Discovery Park) ParkNShop Superstore (Discovery Park) Yeung Uk Road Market (Food and Environmental Hygiene Department)	11
3. Kwai Tsing	Maritime Square (MTR Corporation Ltd.) McDonald's (Maritime Square) Cafe de Coral (Maritime Square) Tao Heung (Maritime Square) Wonderland Villas Complex Wellcome Supermarket (Wonderland Villas Complex) Cheung Fat Modern Market	7
4. Sham Shui Po	Manhattan Hill (Royal Elite Service Company Ltd.) Pacific Coffee (Manhattan Hill) Tao Square (Manhattan Hill) Manhattan Hill Club House Restaurants	4
5. Yau Ma Tei, Tsim Sha Tsui,	Sheraton HK Hotel & Towers Novotel Nathan Road Kowloon Hong Kong	15

District	Participants	Quantities
Mong Kok	The Peninsula Hong Kong Intercontinental Hong Kong Langham Place, Mongkok , HK The Mira Hong Kong Holiday Inn Goldenmile Macro Polo Hong Kong Hotel The Langham, Hong Kong Hotel W Hotel Queen Elizabeth Hospital (Hospital Authority) Dutch Kitchen (Queen Elizabeth Hospital) Pacific Coffee (Queen Elizabeth Hospital) Asia Pacific Catering (Queen Elizabeth Hospital) Kowloon Hospital (Hospital Authority)	
6. Kowloon City	Yew Chung Education Foundation PentaHotel	2
	Total	**40**
Other Districts	**Total (Other Districts)**	**110**
7. Kwun Tong	Amoy Plaza (Hang Lung Properties Ltd.) McDonald's (Amoy Plaza) Loving Hut (Amoy Plaza) Riso (Amoy Plaza) Cafe de Coral (Amoy Plaza) Tao Heung (Amoy Plaza) apm (Sun Hung Kai Properties Ltd.) JUSCO Supermarket (apm) Table 18(apm) China House (apm) King & I (apm) Gyu Jin Shabu Shabu & Sukiyaki (apm)	18

District	Participants	Quantities
	Yummy (apm) Neway Karaoke Box(apm) Exchange Tower (Sino Property Services) King Palace Chinese Restaurant (Exchange Tower) Naruto (Exchange Tower) MegaBox	
8. Wong Tai Sin	Lucky Market(The Link Management Ltd.) Well Sighted Limited(The Link Management Ltd.) Plaza Hollywood Limited Beppu Ramen (Plaza Hollywood) Yummy (Plaza Hollywood) Chao and Hak (Plaza Hollywood) HEICHINROU (Plaza Hollywood) Modern China Restaurant (Plaza Hollywood) ParkNShop Superstore (Plaza Hollywood) Pizza Hut (Plaza Hollywood) Xia Mian Quan (Plaza Hollywood) Lok Fu Plaza (The Link Management Ltd.) MouMouClub (Lok Fu Plaza) Sushi Dai (Lok Fu Plaza) ParkNShop Superstore (Lok Fu Plaza) Pizza Hut (Lok Fu Plaza) Starbucks (Lok Fu Plaza) McDonald's (Lok Fu Plaza) Lok Fu Market	19
9. Tuen Mun	Tuen Mun Town Plaza (Sino Properties Service) Crystal Jade La Mian Xiao Long Bao (TMT Plaza) Dondonya Shokudo (TMT Plaza) Beppu Ramen (TMT Plaza) Yummy (TMT Plaza) Shanghai Min (TMT Plaza) Spaghetti House (TMT Plaza)	15

District	Participants	Quantities
	AEON Tuen Mun Store (TMT Plaza) Café de Coral (TMT Plaza) Café de Coral (K-Point) K-point (Sun Hung Kai Properties) Spaghetti360 (K-Point) Morihachi Kitchen Tamago (K-Point) MOS Burger (K-Point) San Hui Market (Food and Environmental Hygiene Department)	
10. Wan Chai	Sun Hung Kai Centre (Sun Hung Kai Properties Ltd.) Harbour Centre (Sun Hung Kai Properties Ltd.) Ajisen Ramen (Sun Hung Kai Centre) Duetto Italian & Indian Dining (Sun Hung Kai Centre) Itacho Sushi (Sun Hung Kai Centre) K.F.C. (Sun Hung Kai Centre) Maxim's Deluxe (Sun Hung Kai Centre) McDonald's (Sun Hung Kai Centre) Oliver's Super Sandwiches (Sun Hung Kai Centre) RAMAS Oysters Bar and Grill (Sun Hung Kai Centre) Starbucks Coffee (Sun Hung Kai Centre) Starbucks Coffee (The Great Eagle Centre) Super Jika Udon (Sun Hung Kai Centre) Victoria City Restaurant (Sun Hung Kai Centre) Crabtree & Evelyn The Tearoom (Sun Hung Kai Centre) U & Me (Harbour Centre) East Ocean Seafood Restautant (Harbour Centre) Super Super Congee & Noodles (Harbour Centre) 7-Eleven (Harbour Centre)	44

District	Participants	Quantities
	Cheese Pizza (Harbour Centre) Café De Coral (Harbour Centre) Triple - O's (Harbour Centre) The Great Eagle Centre (Sun Hung Kai Properties Ltd.) Pacific Coffee (The Great Eagle Centre) Yat Tung Heen (The Great Eagle Centre) The Excelsior, Hong Kong Mandarin Oriental Hong Kong Renaissance Harbour View Hotel Hong Kong Hysan Place (Hysan Property Management Limited) Holly Brown(Hysan Place) Shelter Italian Bar & Restaurant (Hysan Place) The Herbivores(Hysan Place) Agetate(Hysan Place) Pepper Lunch Express(Hysan Place) Ramen Ganpachi (Hysan Place) Chilli N Spice(Hysan Place) Izumi Curry(Hysan Place) Honeymoon Dessert(Hysan Place) BB1 Vietnamese Bistro (Hysan Place) Eight Grand(Hysan Place) Ho Hung Kee (1946) (Hysan Place) Moments(Hysan Place) Bologne Café(Hysan Place) Wired Café(Hysan Place)	
11. Central and Western	Four Seasons Hotel HK The Peak Galleria (Hang Lung Properties Ltd.) McDonald's (The Peak Galleria) Delifrance (The Peak Galleria) Spaghetti 360 (The Peak Galleria) Queen Mary Hospital (Hospital Authority)	6

District	Participants	Quantities
12. Sha Tin	A&W Food Services Ltd. Kam Ying Court Market, (The Link Management Ltd.) Wang On Commercial Management Ltd. (The Link Management Ltd.) Swire Coca-Cola HK Ltd. Hyatt Regency HK, Sha Tin Luncheon Star	6
13. Tai Po	Tai Po Hui Market (Food and Environmental Hygiene Department) Fu Shin Market (The Link Management Ltd.)	2