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13 January 2016

Public Accounts Committee
Legislative Council Secretariat
Legislative Council Complex
1 Legislative Council Road
Central, Hong Kong

(Attn: Mr. Anthony CHU)

Dear Mr. CHU,

**Public Account Committee
Consideration of Chapter 2 of the Director of Audit's Report No. 65**

Reduction and Recycling of Food Waste

In response to your letter dated 30 December 2015, the Administration would like to provide the requested information for Members' reference.

Yours sincerely,

(Ms Vivian CHAN)

for Director of Environmental Protection

Encl.

- c.c. Secretary for the Environment (fax no. 2537 7278)
- Secretary for Education (fax no. 2810 7235)
- Chief Executive, Hospital Authority (fax no. 2576 5050)
- Commissioner of Correctional Services (fax no. 2583 9307)
- Director of Housing (fax no. 2761 6700)
- Director of Food and Environmental Hygiene (fax no. 2524 1977)
- Secretary for Financial Services and the Treasury (fax no. 2147 5239)
- Director of Audit (fax no. 2583 9063)

Reply to PAC on further questions on Food Waste

Recycling of food waste

- (a) **with reference to paragraphs 2.88(h) and 2.91 of the Audit Report, a copy of the guidelines to schools on methodologies of measuring food waste quantities, and whether the Environmental Protection Department (“EPD”) would, in collaboration with the Education Bureau, consider organizing workshops for schools to explain the methodologies of measuring food waste quantities;**

Reply:

Schools approved with ECF funding to implement on-site meal portioning (OMP) are required to provide food waste quantities before and after adopting OMP. As part of the conditions for approving the funding, ECF Secretariat required schools to provide information on food waste reduction after implementation of the OMP. For this purpose, we have issued guidelines on methodologies of measuring food waste quantities in the food waste survey form these schools since July 2011, the version we issued in July 2011 is at **Annex A**. As part of our green school lunch promotion efforts, EPD, in collaboration with EDB, will arrange sharing sessions with schools on the successful implementation of OMP. The methodologies of measuring food waste quantities will be explained in the sharing sessions.

- (b) **with reference to paragraph 3.18 and 3.25 of the Audit Report, the extracts of the relevant provisions in the two consultancy agreements made in August 2008 and July 2012 respectively in relating to the Organic Waste Treatment Facility (“OWTF”) Phase 1 project on protecting the Government’s interests against unsatisfactory performance of the Consultant;**

Reply:

There was only one consultancy agreement No. CE 7/2008(EP)

made under the OWTF Phase 1 project. The additional services referred to in paragraph 3.25 were conducted by the same consultant under a supplementary agreement and all provisions under the main agreement apply to the additional services. .

The relevant provisions under the main agreement No. CE 7/2007(EP) and the supplementary agreement on protecting the Government's interests against unsatisfactory performance of the Consultant are extracted below:

Clause 22 of the General Conditions of Employment of Engineering & Associated Consultants for a Feasibility Study issued to Consultant A on 8 August 2008

- (A) The Consultants shall exercise all reasonable professional skill, care and diligence in the performance of all and singular the Services and, in so far as their duties are discretionary, shall act fairly between the Employer and any third party.*
- (B) The Consultants shall, in respect of any work done or information supplied by or on behalf of the Employer, report to the Director's Representative any errors, omissions and shortcomings of whatsoever nature of which the Consultants become aware in the performance of the Services.*
- (C) The Consultants shall indemnify and keep indemnified the Employer against all claims, damages, losses or expenses arising out of or resulting from any negligence in or about the conduct of and performance by the Consultants, their servants or agents, of all and singular the Services.*
- (D) In the event of any errors or omissions for which the Consultants are responsible and as a result of which the re-execution of the Services is required, the Consultants shall, without relieving any liability and obligation under the Agreement, at their own cost re-execute such Services to the satisfaction of the Director's Representative.*

Clause 5 of the Supplementary Agreement issued to the Consultant A in July 2012

5. *No Release Provision*

5.1 *By agreeing with and making payment to the Consultants for these Additional Services, the Employer does not:*

- a) release the Consultants from any liability to the Employer (including any claim for costs), or*
- b) waive any claim or action (including any claim for costs) the Employer may have against the Consultants*

in any way connected with the Project as defined in the Agreement whether for breach of the terms of Consultancy Agreement No. CE 7/2008 (EP), negligence, breach of duty or otherwise, howsoever and whensoever arising.

- (c) **with reference to paragraphs 3.20 and 3.21 of the Audit Report and paragraph 6(b) of the Financial Circular No. 2/2009 “Initiating Works-related Tendering and Consultants Selection Procedures Before Funding is Secured” (Enclosure 1 of R65/2/GEN3), a copy of the risk assessment report prepared by EPD on the risks involved in initiating a procurement exercise before funding was secured for the OWTF Phase 1 project;**
- (d) **correspondence between EPD and the Environment Bureau (“ENB”) to seek the approval of the latter on conducting a parallel tendering for OWTF Phase 1 project;**

Reply to (c) and (d):

In deliberating on the appropriate tendering approach, we had assessed the risks involved in initiating a procurement exercise before funding was approved in accordance with the Financial Circular (FC) No. 2/2009. When we reported to the Legislative Council Panel on Environmental Affairs (EA Panel) in April 2009 on the updated progress of the Policy Framework for the Management of Municipal Solid Waste (2005-2014) issued in 2005 (Paper No. CB(1) 1357/08-09(03)), the proposal for developing the OWTF Phase 1 was discussed and no adverse comment was received. To assess and address the public specific concerns on the selected site for the proposal, we adopted a continuous public involvement process with the two relevant District Councils, Tsuen

Wan District Council and Islands District Council, throughout the planning and development stages, together with site visits organised in early 2010. Upon completion of Environmental Impact Assessment (EIA) study of the project in early 2010, we presented the scope of work to and further consulted the Tsuen Wan District Council and Islands District Council on the EIA findings on 26 January 2010 and 8 February 2010 respectively. The two District Councils expressed support of the OWTF Phase 1 project. We therefore considered that the risk for facing negative reaction leading to Government to abort the tender due to lack of funding or substantive last-minute changes to the scope of the proposed works low. In addition we considered that as the proposed OWTF would be the first of its kind in Hong Kong, there would be high degree of uncertainty in its cost estimates. Parallel tendering was recommended to provide reliable cost estimates before funding approval from Legislative Council was sought.

In August 2010, we obtained approval from the Secretary for the Environment for initiating parallel tendering for the OWTF Phase I project in accordance with the Financial Circular (FC) No. 2/2009. The relevant document is attached in **Annex B**.

EPD's intention to adopt parallel tendering approach was presented in the EA Panel Submission in November 2010 (Paper No. CB(1) 461/10-11(04)).

- (e) **with reference to paragraph 3.25 of the Audit Report, the reasons for instructing the Consultant to carry out additional services relating to the re-tender exercise for the OWTF Phase 1 project at a lump-sum fee of \$1.8 million and the scope of service under this agreement;**
- (f) **A summary of features/items that are added to the tender document in 2013 for the OWTF Phase 1 project as compared with that of the Tender exercise in 2011;**

Reply to (e) and (f):

After the cancellation of the first tender exercise for the OWTF Phase 1 project in public interest in 2012, we needed to explore

***Note by Clerk, PAC:** *Please see Appendix 23 of this Report for Annex B.*

practicable measures to address the main causes of the unreasonably high returned tender prices, with a view to identifying appropriate revisions to the tender documents and initiating the re-tendering process. It was therefore necessary to instruct Consultant A to carry out additional services relating to the above via a supplementary agreement.

The scope of additional services under this supplementary agreement includes:

- (a) Review, explore, evaluate and recommend practicable measures to improve cost-effectiveness and lower the capital and recurrent costs of the Project having regard to the market feedback from the outcomes of the cancelled tender exercise ;
- (b) Liaise, carry out and complete all necessary statutory and administrative processes to enable inclusion of the agreed measures recommended in (a) above in order to confirm their acceptability for inclusion in the re-tendering exercise;
- (c) Prepare the revised tender documents for the Project based on the agreed measures recommended in (a) and (b) above; and
- (d) Carry out the re-tendering exercise, conduct screening and evaluation of tenders, negotiate with tenderers, recommend the qualifying tenders and prepare the Tender Recommendation Report as stipulated in the original Brief.

A summary of key features/items for inclusion of updated and modified requirements to the tender documents in 2013 for OWTF Phase 1 project as compared to that of the Tender exercise in 2011 is provided in **Annex C**.

- (g) **with reference to the difference between the capital cost of the proposed works for OWTF Phase 1 of \$1,532.8 million and the initial indicative estimate of \$489 million, a breakdown on the increase in cost;**

***Note by Clerk, PAC:** Please see Appendix 24 of this Report for Annex C.

Reply:

It should be noted that as stated in the LegCo EA panel paper in November 2010, the main purpose of the submission was to brief members on the background and scope of the OWTF Phase 1 and inform members that the Administration would proceed with tendering for the design-build-operate contract of this project, and subject to the tender outcome, the Government intended to seek the funding approval of the Finance Committee. It was stated in the same paper that the Government would finalize the project estimate (i.e. the indicative estimate of \$489 million) based on the tender return and include the cost breakdown prior to the submitting the proposal to the Public Works Sub-committee (PWSC) for consideration. It was not the purpose of the 2010 November submission to LegCo EA Panel to define a reliable project estimate at that stage. As committed in the above EA Panel paper in November 2010, as soon as we completed the retendering exercise in January 2014, we reverted to the EA Panel in March 2014 (CB(1)1074/13-14(01)) before PWSC submission. As explained in paragraph 14 of the EA Panel paper in March 2014, the initial estimate presented in the 2010 paper was an indicative figure based on an initial, broad-brush scheme. The main reasons for the differences between the latest project cost and the initial indicative estimate include:

- (i) significant increases in the costs of capital works projects in recent years since 2010;
- (ii) in detailed designs, additional provisions were identified to provide sufficient and robust treatment capacity to meet the service level requirements for continuous 24 hour operation of the facility in normal and anticipated circumstances of scheduled maintenance, overhauls, variation in quality of incoming food waste, and inclement weather conditions. These requirements include the provision of pre-treatment facilities to render the food waste suitable for anaerobic digestion; increased waste water treatment requirements; and increased waste treatment and office floor areas to meet operational requirements;

- (iii) as a result of a detailed site condition study, natural terrain and slope protection cum mitigation works have been proposed. Additional environmental mitigation and monitoring measures have also been identified to meet the recommendations in the environmental impact assessment study;
- (iv) design of the combined heat and power generators and associated control system for export of surplus electricity could only be finalized after the amount of surplus electricity available for export has been ascertained in the detailed design of the treatment facility; and
- (v) consultants' fees for contract administration and remuneration of resident site staff.

As the initial estimate at \$489 million given was no more than an indicative figure based on an initial broad-brush scheme whereas the project estimate of \$1,532.8 million was the result of an open and competitive tender in 2013 upon completion of detailed reference design and site specific requirements, it is not appropriate to compare the difference in costs.

- (h) **with reference to paragraph 3.28(c) of the Audit Report, the reasons for requesting the Consultant to carry out the natural terrain hazard study in an additional cost of \$0.8 million and the scope of service under the agreement;**

Reply:

The reasons for requesting the consultants to carry out natural terrain hazard study are as follows:

- (a) It was noted that a natural terrain hazard study and any appropriate mitigation measures, if found necessary, should be carried out as part of the proposed development when the proposed Permanent Government Land Allocation (PGLA) for this project was circulated for comment in June 2011.

While awaiting the Lands Department to finalize the engineering conditions for the PGLA, it was considered necessary to instruct the Consultant to carry out the natural terrain hazard study (NTHS) to assess the requirements of the slope and natural terrain protection works.

- (b) The Consultant had been involved in the Agreement since 2008 and was responsible for studying the feasibility of the project. Their extensive knowledge of the project would enable timely completion of the NTHS without the need to familiarize with the project background and to review the engineering feasibility study reports, EIA report and original tender documents again. This arrangement could also minimize the time taken for the study and ensure better study coordination.

The scope of service under this agreement includes:

- a. background information search for natural terrain and related disturbed terrain;
- b. detailed aerial photograph interpretation;
- c. preliminary field reconnaissance;
- d. detailed field mapping (include boulder survey);
- e. recommendation for any necessary ground investigation (GI) works;
- f. detailed natural terrain hazard study, including collate and interpret GI results, establish engineering geological model / map, develop natural terrain hazard model / map, conduct debris runout modeling / rockfall analysis, and assess and quantify potential natural terrain hazards;
- g. propose plausible natural terrain hazard mitigation options;
- h. prepare Natural Terrain Hazard Study Report;
- i. prepare tender documents and drawings for any necessary GI works, prepare GI works order, and provide GI supervision and liaise with Geotechnical Engineering Office of Civil Engineering Development Department;
- j. project management/liaison/coordination & meeting with external parties; and

- k. submit a Natural Terrain Hazard Study Report for the Project. The Report shall cover all the works, findings and recommendations required by items (a) to (k) above.

The cost of the additional service to be charged by the consultants was a lump sum fee of \$796,000. The cost estimation was based on the time charges rates of the Fee Proposal of the captioned consultancy agreement and the manpower inputs submitted by the Consultant A. Given the large catchment area of the study and the scope of work listed above, it was considered reasonable to utilize the recommended level of manpower for this study. Based on the manpower requirements recommended by Consultant A, the scope of service, the man-hour charge rates, the cost of the additional service were assessed as reasonable and acceptable.

- (i) **according to paragraph 3.15(a) of the Audit Report, OWTF Phase 1 would treat 200 tonnes per day (“tpd”) of food waste. At the public hearing on 29 December 2015, the Director of Food and Environmental Hygiene and Assistant Director (Natural Conservation and Infrastructure Planning) of EPD mentioned that EPD had estimated that 40 tpd of food waste would be collected and delivered from 36 wet markets managed by the Food and Environmental Hygiene Department (“FEHD”) to OWTF Phase 1 in mid-2017. Also according to paragraph 3.37, EPD envisaged in 2010 that 85.6 tpd and 114.4 tpd food waste to be delivered to OWTF Phase 1 would be provided by FEHD wet markets and private sector respectively.**

(i) specific measures to be taken by ENB in collaboration with the Food and Health Bureau to assist FEHD in achieving the above target of 40 tpd of food waste to be collected and delivered from the 36 wet markets to OWTF Phase 1 in mid-2017;

(ii) specific measures to be taken by ENB and EPD to ensure that the remaining 160 tpd of food waste is collected and delivered to OWTF Phase 1 for treatment upon its commissioning in mid 2017, in particular whether the

Administration would provide incentives to encourage the delivery of source-separated food waste to OWTF Phase 1 for treatment;

Reply:

EPD is liaising with FEHD to explore the possibility of conducting the pro-active food waste collection at the 36 wet markets identified. In order to increase the amount of food waste to be collected, the proposed proactive mode of operation allows the stall operators to dispose of source-separated food waste (SSFW) at a designated time, without the need to leave their stalls. EPD will also conduct educational and promotional work in parallel to encourage the stall operators to develop their practices for food waste separation at source.

To ensure the pro-active food waste collection could be implemented smoothly at the time of commissioning of OWTF Phase 1, EPD will work in collaboration with FEHD to conduct a 6-month trial, starting from early 2016, at two of FEHD markets, i.e. North Kwai Chung Market and Po On Road Market and its associated cooked food centre. The contractor for this trial is required to collect SSFW pro-actively from all stall operators in the markets and cooked food stalls at least twice per day during off peak hours and record the quantity of SSFW collected at each round of collection. The collected SSFW will be delivered to the Kowloon Bay Pilot Composting Plant for treatment. The experience gained from this trial would be beneficial to both EPD and FEHD in formulating practicable arrangement for enabling source separation of food waste by the stall operators and effective food waste collection at the wet markets, and delivery to treatment facility therein. The data collected will also be useful for examining total collectable food waste from FEHD's markets and its cooked food centres, as well as the required resources and funds for proceeding with this pro-active operation. We will discuss with FEHD on the funding and resource arrangements for collection and delivery of source-separated food waste to the OWTF Phase 1.

Apart from our current liaison with FEHD, we will continue to

liaise with other government departments (disciplined services, LCSD and quasi-government units, such as Hospital Authority and Universities, etc.) on this issue.

With respect to the food waste generated from the commercial and industrial (C&I) establishments, we do not see the need for EPD to arrange at government's cost a collection service to collect and deliver the food waste from the C&I sectors to the OWTF Phase 1 as it is their current responsibility to deliver the food waste as part of the MSW to the current disposal facilities (either to refuse transfer stations or landfills). For those C&I establishments in the OWTF Phase 1 catchment, there is potential for them to save some transportation cost, while enhancing their environmentally friendly image that may help attract environmentally conscious customers. 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. As the future MSW charging scheme will apply to all MSW including food waste being disposed at landfills and other waste disposal facilities, it would be useful for the trade to start early preparation to learn and build up their experience for source separation of food waste for disposal at the OWTF-1 which will be considered as a recycling facility.

EPD is liaising closely with various stakeholders and waste collectors to promote source separation and delivery of food waste to OWTF Phase 1 upon its commissioning, with particular focus on different key sectors (such as restaurant trade, developers of shopping malls, hotel trade, food factories, etc.) within the catchment of the OWTF Phase 1. We will provide technical support, guidelines and the associated trainings for the trades/sectors. We have also engaged a service contractor to facilitate the communication between C&I sectors and the waste collectors to implement food waste reduction, source separation, collection and transportation, etc. We are liaising with over 230 establishments to explore logistic arrangement for delivering food waste to OWTF Phase 1.

In parallel with the implementation of waste charging, we are

considering various measures to encourage the C&I sectors for encouraging them to source separate and deliver food waste to OWTF Phase 1, including recognition measures for the participants' efforts of those who are prepared to deliver food waste to OWTF 1 through publicity events to be attended by stakeholders and senior government officials, such as publicity on our web and facebook and the food wise platform, certificates/marks/logos etc. for displaying at their establishments, and issuing certificate showing carbon credit on the amount of food waste delivered to OWTF 1 for treatment.

We would continue to consider other appropriate measures taking into account the feedback from the liaison with the trades. The target remains that the food waste amount to be delivered to the OWTF Phase 1 will be able to meet its operational requirements at the early operational stage. The amount will then gradually grow to achieve its maximum design capacity of 200 tpd.

(j) According to paragraph 3.40(b) of the Audit Report, EPD has engaged a service contractor to liaise with the commercial and industrial sector and will continue to secure support from the major food-waste-generation establishments to deliver source-separated food waste to OWTF Phase 1 for treatment upon its commissioning in mid-2017. In this regard, please provide the following details:

- (i) scope of service to be provided by the service contractor;**
- (ii) tendering process, such as the type of tender and the number of tender proposals received;**
- (iii) duration of the contract**
- (iv) fee(s) payable under the contract;**
- (v) background information on the service contractor, including its relevant experience;**

Reply:

- (i) In November 2014, EPD commenced a 32-month service contract for a contractor to engage private C&I sectors in source separation and delivery of food waste to the OWTF**

Phase 1. The scope of the service includes:

- (a) launch educational and publicity activities to enhance the awareness of the C&I sectors in good food waste reduction and management practice;
 - (b) arrange large-scale publicity campaigns to introduce the Scheme and prepare the associated publicity materials;
 - (c) liaise with relevant associations such as the Hong Kong Productivity Council, Hong Kong Federation of Restaurants & Related Trades, Association of Restaurant Managers, the Association for Hong Kong Catering Services Management Ltd, Hong Kong Hotels Association, the Hong Kong Association of Property Management Companies, LINK and other agencies in C&I sectors to gain their support and encourage their members to participate in the Scheme;
 - (d) approach not more than 130 potential Scheme participants and solicit their agreement and commitment to deliver the collected source-separated food waste to the OWTF upon its commissioning in order to secure the 200 tpd of food waste required for the operation of the OWTF; observe and review the food waste management practice of each Scheme participant;
 - (e) organize a pledging ceremony, a prize giving ceremony and an experience sharing workshop to officiate the commencement of the Scheme, to promote participation, to recognize the contribution of the participants and to provide a platform for the participants to share their experience with the C&I sectors;
 - (f) design and produce pamphlets, posters and guidelines on food waste reduction, good management practice, source separation and recycling;
- (ii) In accordance with the Stores and Procurement Regulations, we initiated an invitation for quotations for the procurement of the relevant service contract in late 2011. Five potential service suppliers were invited for quotations. At the close of the invitation period, we received one quotation. The

quotation received was vetted and found to be fully compliant with the contract requirements. The contract was subsequently awarded to the service contractor in early 2012. The service contract commenced in November 2014 after FC approved the funding application of the OWTF Phase 1 project in October 2014.

- (iii) The concerned contract is a 32-month service contract with contract duration from November 2014 to June 2017.
 - (iv) The lump sum fee of the Contract is \$1.353M, and the Contractor shall be paid with satisfactory completion of deliverables in accordance with the payment schedule as stipulated under the Contract.
 - (v) The service contractor is a local environmental charitable organization founded in 1993. Since 2006, it has focused on raising public awareness on food waste in Hong Kong and has established close partnerships with different sectors such as shopping malls, schools and trade associations. From 2010 to 2014, the organization was also involved in service contracts for engaging C&I sectors in participating in EPD's partnership scheme for delivery of source separated food waste to Kowloon Bay Pilot Composting Plant and implementing district based publicity and education activities on food waste reduction, source separation, collection and delivery.
- (k) **according to para 3.54, the Government envisaged that 250,000 households would participate in separation of food waste by 2022. Please explain how the figure of 250,000 households is arrived at. Does the Government have any concrete plan(s) to encourage more households to participate in the separation of food waste;**

Reply:

Appendix 16

As stated in (hh) of ~~the English version reply sent to PAC on 23 December 2015~~, the figure of 250,000 households as mentioned in

page 15 of the Food Waste Plan illustrated a possible scenario assuming OWTF Phases 1, 2 and 3 could be built by 2022 as assumed in the 2014 Food Waste Plan. It was estimated on the basis of the spare capacity available from the three organic waste treatment facilities (a total capacity of about 800 tpd) to be built by 2022 after deducting the capacity needed for the C&I food waste, and then dividing it by the assumed average food waste per household per day.

Please note that the above is just crude estimation and the actual number of households that would participate in food waste recycling would depend on a number of assumptions and the collaboration with the community and C&I sector, including the amount of food waste generated by the C&I sector in 2022 and the % of collectable food waste, etc.

To encourage more households to participate in the separation of food waste, the Food Wise Hong Kong Campaign will work hard to mobilize all stakeholders and the public. The Government also supported a number of food waste recycling programmes through the Environment & Conservation Fund, or implemented by the Housing Authority, to encourage and promote source separation of food waste. It is also anticipated that food waste separation would be increased progressively in scale when Municipal Solid Waste Charging is in place.

Source :

- *Page 23 of “A Food Waste & Yard Waste Plan in Hong Kong : 2014 – 2022”*
- *Monitoring of Municipal Solid Waste in Hong Kong 2011*
<https://www.wastereduction.gov.hk/sites/default/files/msw2011.pdf>
- *Hong Kong Monthly Digest of Statistics, April 2012*
http://www.census2011.gov.hk/pdf/Feature_articles/Trends_Pop_DH.pdf

- (I) **whether you agree that the Government’s actions taken before the publication of the “A Food Waste and Yard Waste Plan for**

Hong Kong (2014-2022)” to address the food-waste problem were piecemeal, and that the progress and achievement of the actions taken so far to address this problem have not been satisfactory;

- (m) a table setting out the progress of the Government’s actions in reducing food waste production and disposal at landfills in accordance with the “A Food Waste and Yard Waste Plan for Hong Kong (2014-2022)”.**

Reply to (l) and (m):

While “A Food Waste and Yard Waste Plan for Hong Kong (2014-2022)” (Food Waste Plan) serves as an effective means to communicate with the public on the Government’s commitment and comprehensive strategy to tackle food waste, a number of the actions and measures were initiated and launched before the promulgation of Food Waste Plan. These measures and actions include, among others, the launch of Food Wise Hong Kong Campaign in 2013, the private food waste treatment facility at EcoPark, and the planning & implementation of OWTFs. Please also see ~~our Reply to PAC dated 23 December 2015~~ (question (a) and Chart B) for more information. *Appendix 16*

We have been implementing the above actions step by step in a progressive manner. These past efforts are by no means “piecemeal” as they have been taken forward in line with the strategies and action items set out in the 2005 “Policy Framework on Municipal Solid Waste Management” which covered food waste as well, and the “Hong Kong Blueprint for Sustainable Use of Resources 2013-2022”. These efforts served to achieve the action plans and target set out in the Food Waste Plan.

Please see the below table on the progress of major measures listed in the Food Waste Plan.

**Progress of Major Measures listed in Figure 6 of
the Food Waste Plan**

Major Measures	Latest Progress
A private facilities e.g. EcoPark	<ul style="list-style-type: none"> ● A private food waste recycling facility with a capacity of about 100 tonnes/day located at EcoPark was commissioned in 2015.
OWTF Phase 1	<ul style="list-style-type: none"> ● Following the funding approval of OWTF Phase 1 on 24 October 2014, we awarded the contract in December 2014 for commissioning the facilities with a capacity of 200 tonnes/day in 2017.
Food Wise Hong Kong Campaign	<ul style="list-style-type: none"> ● The Food Wise HK Campaign was launched in 2013. ● Please see the progress of various measures and programmes as given in our Reply to PAC dated 23 December 2015 (question (g)). <i>Appendix 16</i>
OWTF Phase 2	<ul style="list-style-type: none"> ● The Environmental Impact Assessment and Engineering Feasibility Study for OWTF phase 2 have been completed. ● The project with a capacity of 300 tonnes/day is anticipated to commence tendering in mid-2016 with a view to commencing operation by 2020. With this programme, we plan to seek funding approval from the LegCo for OWTF phase 2 in 2017.

OWTF Phase 3	<ul style="list-style-type: none"> ● A site in Shek Kong has been earmarked for OWTF phase 3 with a capacity of 300 tonnes/day. ● We will take forward its EIA and Engineering Feasibility Study in 2016, with a view to commencing its operation by 2022.
Further OWTF (Phase 4 & 5)	<ul style="list-style-type: none"> ● We are liaising with the relevant departments and will continue to look for suitable sites for the development of the remaining OWTFs and keep an open mind on the site selection and development mode.
Other Food Waste Reduction/Recycling Initiatives	<ul style="list-style-type: none"> ● To prepare for large scale food waste recycling in future, we have also implemented a number of schemes to raise public's awareness on food waste reduction, and to promote the practice of source separation to facilitate food waste collection and recycling in future. <ul style="list-style-type: none"> - Food Waste Recycling in Public Rental Housing Estates: Further to the previous trial food waste recycling schemes implemented by HD under the community environmental education programme, HD and EPD are liaising on future food waste reduction/recycling programmes. - Food Waste Recycling in Private Housing Estates: Up to December 2015, 41 funding applications have been approved to support food waste reduction and on-site

	<p>recycling.</p> <ul style="list-style-type: none"> - Food Donation: Up to December 2015, The Environment and Conservation Fund has approved about \$15 million to ten NGOs to help them to organize recovery of about 950 tonnes of surplus food for distribution to some 700,000 headcounts. - Food Waste Recycling Partnership Scheme: Since commencement of the programme in June 2010, over 190 C&I premises and their front-line staff had become familiar with the practices of collection and source-separation of food waste, and over 2,000 tonnes of food waste are collected.
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致：環境保護署（經辦人：林美如女士）（傳真號碼：2872 0389）

學校參考編號：_____

環保午膳及廚餘報告表（20__ / __ 學年）

獲批環境及自然保育基金的學校（未安裝 / 已安裝*現場派飯設施）* 請刪除不適用者

請提供相關資料，並在適當的方格內加上✓號。（只需提供學生資料，並不包括教職員用膳資料。）

- 本校名稱：_____

本校現有班級及學生人數：_____ 級 _____ 班，共 _____ 人

聯絡人姓名及職位：_____

電話號碼：_____ 電郵：_____
- 本校學生留校午膳的人數：

☐ 有。約_____人
- 本校學生留校午膳的方式包括：

☐ 由學生自備，約 _____ 人

☐ 由飯商供應，約 _____ 人；飯商是：_____（請回答第 4 題）

☐ 在小食部購買，約_____ 人；並由同一飯商經營：☐ 是 ☐ 否
- 由飯商供應的部份，包括以下的組合：（下列午膳模式的飯盒份數總和，應當相等於第 3 題填寫飯商供應的總飯盒份數。）

☐ 現場派發飯菜，在飯堂進食並使用可重複清洗及再用的飯盒，_____ 份

☐ 現場派發飯菜，在課室進食並使用可重複清洗及再用的飯盒，_____ 份

☐ 使用耐用度高，並可重複清洗使用的可再用飯盒，_____ 份

☐ 使用可回收再造的 PP 飯盒，_____ 份；飯盒回收商是：_____

☐ 使用其他即棄飯盒（一般為紙、錫紙或發泡膠所造），_____ 份
- 本校學生留校午膳時，

☐ 不會使用即棄餐具 ☐ 會使用即棄餐具
- 本校每天產生的廚餘約 _____ kg，佔供應給學生的食物約 _____ %（量度方法，請參考背頁）

[註：廚餘佔供應學生食物的百分比：（每天總廚餘量^{（項目 6b）} ÷ 供應食物總量^{（項目 6a）}）x 100%
- 本校現時減少廚餘的方法：_____
- 本校在改行現場派發飯菜後進一步減少廚餘的方法：_____

- 報告未完，請轉背頁 -

學校參考編號: _____

請就報告第 6 項提供補充資料，並在適當的方格內加上✓號。

6a. 飯商供應給學校的食物量

1. 飯盒部份：

- ☐ 有。大盒食物淨重 _____ g； _____ 份 ☐ 沒有
小盒食物淨重 _____ g； _____ 份

(可自行抽樣量度或向飯商查詢)

2. 現場派發飯菜部份：

- ☐ 有。每份食物淨重 _____ g ☐ 沒有

(可自行抽樣量度或向飯商查詢)

6b. 每天產生的廚餘量

學校可透過午膳供應商或其他可行方法，量度最少連續五天的廚餘數據，然後填寫以下部份：

1. 飯盒部份：

- ☐ 有。平均每天的廚餘總重量 _____ kg ☐ 沒有

(量度方法：建議把廚餘與餐盒一起入袋磅秤，然後扣除餐盒的重量)

2. 現場派發飯菜部份：

- ☐ 有。平均每天的廚餘總重量 _____ kg ☐ 沒有

(量度方法：建議在清洗餐盆前，把廚餘分出，入袋及磅秤)

6c. 數據收集時間

本校在 _____ 至 _____ 期間收集上述數據

(建議根據餐單的重複週期，收集不少於五天的數據，然後取其平均值)

6d. 本校產生廚餘的成份，各佔總廚餘量的百分比：

- ☐ 五穀類食物 (例如：白飯、意粉、糙米飯、燕麥片等)，佔 _____ %
☐ 蔬菜類 (例如：葉菜、豆類、瓜類等)，佔 _____ %
☐ 肉類 (例如：牛、豬、雞、羊、魚等)，佔 _____ %
☐ 水果類 (例如：橙、蘋果、香蕉等)，佔 _____ %
☐ 其他，請列明： _____，佔 _____ %

報告完，謝謝。請根據基金申請確認信條款(八)列明的時間，把填妥的報告於未安裝設施前及安裝設施後傳真至 2872 0389 或電郵至 greenlunch@epd.gov.hk。如有任何疑問，請致電 2872 1705 與陳佩婷小姐聯絡。如有需要，我們將安排實地視察學校的午膳情況及廚餘的產生量。

***Note by Clerk, PAC: Chinese version only.**