

立法會
Legislative Council

LC Paper No. CB(1)210/16-17
(These minutes have been seen
by the Administration)

Ref : CB1/PL/EA

Panel on Environmental Affairs

Minutes of meeting
held on Monday, 24 October 2016, at 2:30 pm
in Conference Room 1 of the Legislative Council Complex

Members present : Hon Tanya CHAN (Chairman)
Dr Hon Junius HO Kwan-yiu, JP (Deputy Chairman)
Hon James TO Kun-sun
Hon Abraham SHEK Lai-him, GBS, JP
Hon Tommy CHEUNG Yu-yan, GBS, JP
Hon Jeffrey LAM Kin-fung, GBS, JP
Hon WONG Ting-kwong, SBS, JP
Hon Starry LEE Wai-king, SBS, JP
Hon CHAN Hak-kan, BBS, JP
Hon CHAN Kin-por, BBS, JP
Dr Hon Priscilla LEUNG Mei-fun, SBS, JP
Hon Paul TSE Wai-chun, JP
Hon LEUNG Kwok-hung
Hon Michael TIEN Puk-sun, BBS, JP
Hon Frankie YICK Chi-ming, JP
Hon WU Chi-wai, MH
Hon YIU Si-wing, BBS
Hon CHAN Chi-chuen
Hon LEUNG Che-cheung, BBS, MH, JP
Hon Kenneth LEUNG
Hon Alice MAK Mei-kuen, BBS, JP
Dr Hon KWOK Ka-ki
Hon KWOK Wai-keung

Hon Dennis KWOK Wing-hang
Hon Christopher CHEUNG Wah-fung, SBS, JP
Dr Hon Fernando CHEUNG Chiu-hung
Dr Hon Helena WONG Pik-wan
Hon IP Kin-yuen
Dr Hon Elizabeth QUAT, JP
Hon Martin LIAO Cheung-kong, SBS, JP
Ir Dr Hon LO Wai-kwok, SBS, MH, JP
Hon Alvin YEUNG
Hon Andrew WAN Siu-kin
Hon CHU Hoi-dick
Hon Jimmy NG Wing-ka, JP
Hon HO Kai-ming
Hon LAM Cheuk-ting
Hon Holden CHOW Ho-ding
Hon Wilson OR Chong-shing, MH
Hon YUNG Hoi-yan
Hon CHAN Chun-ying
Hon CHEUNG Kwok-kwan, JP
Hon HUI Chi-fung
Hon LAU Kwok-fan, MH
Hon Kenneth LAU Ip-keung, MH, JP
Hon KWONG Chun-yu
Hon Jeremy TAM Man-ho
Hon Nathan LAW Kwun-chung
Dr Hon YIU Chung-yim

Members absent : Hon LEUNG Yiu-chung
Prof Hon Joseph LEE Kok-long, SBS, JP
Hon WONG Kwok-kin, SBS, JP
Hon Mrs Regina IP LAU Suk-yee, GBS, JP
Hon Claudia MO
Hon Steven HO Chun-yin, BBS
Hon MA Fung-kwok, SBS, JP
Hon Charles Peter MOK, JP
Hon CHAN Han-pan, JP
Dr Hon CHIANG Lai-wan, JP
Hon SHIU Ka-chun
Hon LUK Chung-hung
Dr Hon LAU Siu-lai

**Public Officers
attending : For item III**

Mr WONG Kam-sing, GBS, JP
Secretary for the Environment

Ms Christine LOH, JP
Under Secretary for the Environment

Mr Vincent LIU, JP
Deputy Secretary for the Environment

Mrs Alice CHEUNG, JP
Deputy Director of Environmental Protection (3)
Environmental Protection Department

Mr MOK Wai-chuen, JP
Assistant Director (Air Policy)
Environmental Protection Department

Mr Brian LAU
Principal Environmental Protection Officer (Air Policy)
Environmental Protection Department

Mr Alan CHOW
Chief Electrical and Mechanical Engineer
(Electricity Team)
Environment Bureau

For item IV

Mr WONG Kam-sing, GBS, JP
Secretary for the Environment

Mrs Vicki KWOK
Deputy Director of Environmental Protection (2)
Environmental Protection Department

Mr Elvis AU, JP
Assistant Director (Nature Conservation &
Infrastructure Planning)
Environmental Protection Department

Clerk in attendance : Ms Doris LO
Senior Council Secretary (1)1
(for Clerk to Panel)

Staff in attendance : Miss Winnie LO
Assistant Legal Adviser 7

Mr Joey LO
Senior Council Secretary (1)8

Mr Jason KONG
Council Secretary (1)1

Miss Mandy POON
Legislative Assistant (1)1

Action

I. Information papers issued since the meeting on 27 June 2016

Members noted that the following papers had been issued since the last meeting:

(LC Paper No. CB(1)1083/15-16(01) — Referral from the Subcommittee on Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Amendment of Schedules) Notice 2016

LC Paper No. CB(1)24/16-17(01) — Letter dated 19 October 2016 from Dr Hon Priscilla LEUNG Mei-fun on monitoring the water quality of Victoria Harbour and promoting a water-friendly culture (Chinese version only))

2. The Chairman asked members to note the following three letters which were tabled at the meeting:

Action

- (a) Ms Claudia MO's letter informing the Chairman of her withdrawal from the Panel (Chinese version only);
- (b) Dr Elizabeth QUAT's letter suggesting issues to be considered by the Panel in the 2016-2017 legislative session (Chinese version only); and
- (c) Mr CHU Hoi-dick's letter on a proposal to set up a subcommittee on refuse collection and resource recovery under the Panel, which contained the proposed terms of reference, time frame, and work plan for the proposed subcommittee (Chinese version only).

(Post-meeting note: The above letters were circulated to members vide LC Paper Nos. CB(1)29/16-17(01), CB(1)30/16-17(01) and CB(1)30/16-17(02) on 25 October 2016.)

3. The Chairman said that in line with past practice, she and the Deputy Chairman would meet with the Secretary for the Environment ("SEN") on 7 November 2016 to discuss the work plan of the Panel for the 2016-2017 session. She would convey members' suggestions on items to be discussed by the Panel in this session to the Administration at the work plan meeting. She invited members to write to the Clerk to the Panel as soon as possible if they had any further proposed discussion items.

4. The Chairman proposed to deal with Mr CHU Hoi-dick's proposal to set up a subcommittee under the Panel under Agenda Item V – Any other business. Members raised no objection.

II. Items for discussion at the next meeting

(LC Paper No. CB(1)19/16-17(01) — List of follow-up actions

LC Paper No. CB(1)19/16-17(02) — List of outstanding items for discussion)

5. Members agreed to discuss the following items at the next regular meeting scheduled for Monday, 28 November 2016, at 2:30 pm:

- (a) Implementation of the Recycling Fund; and

Action

- (b) Proposal to control volatile organic compounds in fountain solutions and printing machine cleansing agents.

III. Review of the Fifth Technical Memorandum for Allocation of Emission Allowances for Power Plants

(LC Paper No. CB(1)19/16-17(03) — Administration's paper on "Review of the Fifth Technical Memorandum for Allocation of Emission Allowances for Power Plants"

LC Paper No. CB(1)19/16-17(04) — Updated background brief on "Technical Memorandum for Allocation of Emission Allowances in Respect of Specified Licences" prepared by the Legislative Council Secretariat)

Briefing by the Administration

6. SEN briefed members on the review of the Fifth Technical Memorandum for Allocation of Emission Allowances in Respect of Specified Licences ("TM") and the promulgation of the Sixth TM. He highlighted that when determining the emission allowances for the two power companies under the Sixth TM, the Administration had taken into account (a) the progress of implementing the plan to increase the percentage of local gas generation to around 50% of the total fuel mix for electricity generation by 2020 ("fuel mix plan for 2020"), including the construction of new gas-fired generation units ("gas-fired units") and replacement of some old power generation units, (b) the practicability to maintain the current import of 80% of nuclear output from Daya Bay Nuclear Power Station to the CLP Power Hong Kong Limited ("CLP") after 2018, and (c) the projected local electricity consumption for 2021.

7. SEN pointed out that pursuant to Section 26G(4) of the Air Pollution Control Ordinance (Cap. 311) which required a TM to be issued at least four years before the commencement of the emission year that it would take effect, the new emission allowances under the Sixth TM would take effect from 1 January 2021 if it would be promulgated within 2016.

Action

8. Members noted that the Sixth TM was published in the Gazette on 21 October 2016 and would be tabled before the Legislative Council on 26 October 2016 for negative vetting.

Discussion

Setting emission caps for PM2.5

9. Mr Kenneth LEUNG enquired if there were any new developments in technology to enable the measurement and hence the setting of PM2.5 emission caps in respect of power plants. He pointed out that the "EPA Method 202 Best Practices Handbook" ("the Handbook") issued by the United States Environmental Protection Agency ("USEPA") in January 2016 had recommended viable means to measure PM2.5 concentrations in a stack. Dr Elizabeth QUAT considered it necessary to explore means to regularly measure PM2.5 emissions from power plants to facilitate monitoring.

10. The Assistant Director (Air Policy) ("AD(AP)") indicated that the Administration had been monitoring the relevant technological advancements. However, as a reliable measurement method was not yet found, setting limits on PM2.5 emissions from local power plants was not practicable at this stage. That said, control measures such as high efficiency electrostatic precipitators and flue gas desulphurization facilities that had been installed in the power plants could reduce particulates including PM2.5.

Admin

11. At the request of Mr Kenneth LEUNG, the Administration agreed to provide supplementary information to explain (a) the reasons why, unlike the measurement of ambient PM2.5, there was no reliable measurement method of PM2.5 concentrations in a stack where water droplets were present, and (b) whether reference could be made to the relevant measurement method(s) set out in the Handbook issued by USEPA.

Reducing carbon emissions

12. Dr Elizabeth QUAT considered that there was an imperative need to de-carbonize emissions from power plants. She queried why the Administration had not set limits for carbon dioxide ("CO₂") emissions from power plants in the new TM, and whether it had explored various means and new technologies, and provided any incentives to the power companies to facilitate reduction of CO₂ emissions from power plants.

Action

13. AD(AP) explained that there was currently no proven practicable technology for controlling CO₂ emissions from power generation. It was thus infeasible to set emission caps for CO₂ in TMs. He said that the Administration was aware of attempts to sequester and store CO₂ emissions. However, the technology was at best at a pilot stage, not to mention that the lack of deep underground caverns in Hong Kong for storing the captured CO₂ would make its application impossible. The Deputy Secretary for the Environment ("DSEN") supplemented that the Administration had set a carbon intensity reduction target of 50%-60% by 2020 when compared to 2005, and the key strategy for achieving this target would be to increase the use of natural gas for electricity generation.

14. On Ir Dr LO Wai-Kwok's enquiry, SEN responded that the Administration envisaged that both the carbon intensity reduction target for 2020 and the target of increasing the local gas generation under the fuel mix plan for 2020 could be achieved, taking into account the progress of construction of new gas-fired units and replacement of some old power generation units due for retirement after reaching the end of their service lives.

15. Mr CHU Hoi-dick queried how the Administration could set and measure the effectiveness of achieving the carbon intensity reduction target for 2020 should there be no practicable technology to measure CO₂ emitted from power generation. He also asked about the criteria for specifying a pollutant which should be subject to an emission cap under a TM, and whether that would include the existence of technology for reducing or controlling the emission of the relevant pollutant.

16. The Under Secretary for the Environment elaborated that, the reduction in the use of coal and the increase in the use of natural gas instead for power generation would directly result in a reduction in CO₂ emission from power generation. In other words, given the progress of replacing coal with natural gas in power generation, an assessment of the effectiveness of carbon intensity reduction could be made. She reiterated that instead of setting emission caps for CO₂ emitted from power generation, the carbon intensity reduction target was to be achieved by adjusting the fuel mix.

Tariff implications

17. Mr WU Chi-wai requested the Administration to provide details on the tariff implications arising from the construction of new gas-fired units and replacement of some old power generation units by the two power companies.

Action

In particular, as the total capital expenditure of the new gas-fired unit (i.e. L11) of the Hong Kong Electric Company, Limited ("HEC") would already be incurred over the remaining period of the current Scheme of Control Agreement ("SCA") before 2018, Mr WU asked whether the commissioning of L11 had been taken into account when setting the emission caps under the Sixth TM, and whether there were pertinent implications on the tariffs. Mr Kenneth LEUNG asked about the current progress of the new gas-fired unit to be built at CLP's Black Point Power Station, and sought the Administration's assessment of the potential impact on tariffs.

18. DSEN advised that L11 of HEC would be commissioned in 2022. As regards CLP's new gas-fired unit at Black Point Power Station, an environmental permit under the Environmental Impact Assessment Ordinance (Cap. 499) for its construction and operation had been granted. As the proposal of constructing the unit was being reviewed by the Government and CLP, it could not be assumed that the unit would be ready for operation in 2021. In the above connection, achieving the proposed 2021 emission caps under the Sixth TM would not involve new capital investments by the power companies. He further submitted that, in view of the impact of the addition of the said two gas-fired units on the fuel mix for electricity generation and hence emissions in future years, the Administration undertook to review the TM again in 2017.

19. Dr KWOK Ka-ki expressed grave disappointment about the inability of the Administration in monitoring the capital investments of the two power companies to avoid over-investment in generation units, resulting in excessive reserve capacity and high tariffs. He considered it inappropriate for the two power companies to kick start project proposals for constructing new gas-fired units before the new SCAs would be in place. He also queried about the genuine need for investments in new gas-fired units, which would in effect enable the power companies to make profits out of the excessive reserve capacity by exporting electricity to the Mainland for sale. Dr KWOK urged the Administration to reconsider strengthening the interconnection between the power grids owned by the two power companies, with a view to obviating the need for constructing non-essential power generation units by facilitating deployment of the existing power generation units between the two companies, rationalizing the level of excessive reserve capacity, and narrowing the tariff differential between CLP and HEC. Mr CHU Hoi-dick asked if the projected local electricity consumption in the coming years would justify for the construction of new power generation units.

20. DSEN responded that in order to ensure the reliability of electricity supply, the power companies needed to have sufficient reserve capacity for

Action

meeting increase in electricity demand, shutting down of the power generation units during maintenance and emergencies, etc. In the coming few years, with the scheduled retirement of some of the coal-fired generation units of the power companies, the Administration estimated that the reserve margin of the power companies would drop.

21. DSEN explained that the existing interconnection of the power grids owned by the two power companies was already serving the functions of providing mutual support between the two power grids, and reducing the reserve capacity each power company required. He further advised that the current tariff differential between the two power companies was expected to narrow significantly as, among others, both of them would mainly use natural gas in the next few years for electricity generation and meeting the emission caps.

22. SEN added that there had been wide community consent towards not enhancing interconnection between the power grids of the two power companies at this stage, taking into account the potentially substantial upfront investments involved and the tariff implications. He also advised that construction of new power generation units would be required for the replacement of old units due for retirement in the coming years, irrespective of whether there would be any changes in the local electricity consumption.

Projected local electricity consumption and electricity conservation

23. On Mr LEUNG Kwok-hung's enquiry, DSEN advised that when setting the emission caps under the Sixth TM, the Administration had considered the updated local electricity consumption forecast for 2021. Comparing with the forecast in setting the Fifth TM, the electricity consumption was reduced by around 2.4% and 1.4% respectively for Hong Kong Island, and for Kowloon and the New Territories.

24. Mr WU Chi-wai enquired about the measures and initiatives to achieve the target of reducing energy intensity in Hong Kong by 2025 under the "Energy Saving Plan for Hong Kong's Built Environment 2015~2025+" ("Energy Saving Plan"). He asked about the correlations between energy intensity and electricity consumption. Mr WU also requested the Administration to consider setting energy conservation targets for the power companies.

25. SEN indicated that the two power companies were among the stakeholders, the participation of which was essential for achieving the energy intensity reduction target under the Energy Saving Plan. Energy

Action

intensity, being a measure of energy use per unit of Gross Domestic Product, correlated with energy (including electricity) consumption. That said, TMs were meant to control the emissions of specified pollutants from power plants whereas energy saving initiatives by the power companies should be dealt with in other contexts, including the SCAs between the Government and the power companies. For example, pursuant to the modifications to the SCAs under the 2013 SCA Mid-Term Review, the two power companies had each set up an energy efficiency fund out of shareholders' earnings to support energy saving improvements of non-commercial buildings with priority given to single residential blocks.

Admin 26. At the request of Mr WU Chi-wai, the Administration agreed to provide information on the latest progress of achieving the target of reducing energy intensity in Hong Kong by 40% by 2025 (compared to 2005) under the Energy Saving Plan.

IV. Implementation of measures to reduce and recycle food waste — progress and manpower arrangements

(To allow sufficient time for discussion, the Chairman extended the meeting for 15 minutes beyond the appointed ending time.)

(LC Paper No. CB(1)19/16-17(05) — Administration's paper on "Implementation of measures to reduce and recycle food waste — progress and manpower arrangements"

LC Paper No. CB(1)19/16-17(06) — Background brief on "Strategies and measures to reduce and recycle food waste in Hong Kong" prepared by the Legislative Council Secretariat)

Briefing by the Administration

27. SEN briefed members on the latest development of the Government's work on reducing and recycling food waste. SEN then sought members' support on a staffing proposal to create a supernumerary directorate post at the rank of Principal Environmental Protection Officer ("PEPO") (D1) in the Environmental Protection Department ("EPD") to strengthen the leadership

Action

and manpower support for implementing the "A Food Waste and Yard Waste Plan for Hong Kong: 2014-2022" ("Food Waste Plan").

Discussion

Food donation

28. Mr CHAN Hak-kan noted that although the per capita disposal rate of municipal food waste had dropped by 7.9% from 2014 to 2015, the actual decrease by weight was only 0.04 kg/person/day. He also noted that many local food businesses were reluctant to donate their excess food due to concerns about food safety and associated legal liabilities. As a result, many food businesses were dumping loads of edible food each day. Mr CHAN urged the Administration to introduce relevant policies, and/or legislation similar to the Good Samaritan Food Donation Act in the United States, to promote food donation and minimize food waste.

29. The Deputy Director of Environmental Protection (2) ("DDEP(2)") advised that one of the four strategies for handling food waste under the Food Waste Plan was "reuse and donation", which aimed at encouraging the commercial sectors to donate food waste, and promoting the use of the Environment and Conservation Fund ("ECF") to support food waste redistribution projects. The Administration had been communicating closely with some non-government organizations ("NGOs") to assist them in establishing links with local food manufacturers and suppliers, and facilitate their collaboration in developing food donation programmes. She added that the Centre for Food Safety had issued a set of guidelines on food recovery with food safety principles that should be applied to food donation. Some NGOs had also entered into food donation agreements with their donors to deal with liability issues. The Administration had no plan to introduce Good Samaritan laws at this stage. Nevertheless, it would keep in view the situation and implement suitable measures as and when necessary.

30. Noting that the French Government had enacted legislation in early 2016 to prohibit supermarkets from discarding unsold food products, Dr KWOK Ka-ki enquired whether the Administration would consider enacting similar legislation in Hong Kong to reduce food waste.

31. SEN advised that apart from requiring supermarkets that exceeded a certain size to give away unsold but still edible food to charities for redistribution to people in need, the French legislation in question also required such supermarkets to recycle unsold and expired food. At this stage, pending the commissioning of a network of Organic Waste Treatment

Action

Facilities ("OWTFs") to provide a viable recycling outlet for food waste, the Administration was not yet in a position to consider similar legislation in Hong Kong.

Organic Waste Treatment Facilities

Demand for organic waste treatment facilities and design capacity

32. Mr Kenneth LEUNG expressed concern about whether there would be sufficient supply of food waste to meet the designed capacity of 200 tonnes per day ("tpd") of the Organic Waste Treatment Facilities Phase 1 ("OWTF1").

33. The Assistant Director (Nature Conservation & Infrastructure Planning) ("AD(NCIP)") advised that an inter-departmental working group led by DDEP(2) had been set up to explore suitable arrangements to source separate, collect and deliver for off-site recycling the food waste generated from the commercial and industrial ("C&I") food waste generating establishments under the management of the Food and Environmental Hygiene Department and the Housing Authority/Housing Department including markets, cooked food venues and shopping malls. In the private sector, EPD had been liaising proactively with the major C&I stakeholders and potential food waste collectors to work out suitable practices on separating, collecting and transporting food waste to OWTFs for onward recycling. Arrangements were being made to deliver source-separated food waste from about 100 C&I food waste generating establishments to OWTF1. EPD would continue to work with more C&I stakeholders on the collection and delivery of their source-separated food waste with a view to gradually reaching the maximum designed capacity of OWTF1.

34. Ir Dr LO Wai-kwok said that the development of OWTF2, OWTF3 and additional OWTFs should be accorded priority given that over 3 000 tonnes of municipal food waste were still being disposed of at landfills daily. Mr LEUNG Che-cheung expressed concern that the development of OWTFs had lagged far behind Hong Kong's pace of food waste generation. Even upon full operation of OWTF1, OWTF2 and OWTF3, only some 800 tonnes of food waste could be recycled on a daily basis. About 2 000 tpd of food waste had yet to be dealt with if further OWTFs could not be built in time.

35. Taking note of members' concerns, SEN responded that under the Food Waste Plan, it was the Administration's intention to tackle the food waste problem through both reduction at source and the development of a

Action

network of OWTFs with the ultimate aim of recycling about 50% of the total amount of food waste in Hong Kong, which was in line with the international norm.

Traffic impact arising from collection and delivery of food waste

36. Noting the heavy traffic burden on areas near the Northeast New Territories Landfill at Ta Kwu Ling after implementation of the Waste Diversion Plan in January 2016 to divert municipal solid waste from disposal at the Southeast New Territories Landfill, Mr CHAN Hak-kan expressed strong reservation on the proposed development of OWTF2 at Sha Ling of the North District as it might likewise give rise to adverse traffic impact on the area. He requested the Administration to provide information on the Traffic Impact Assessment ("TIA") for the proposed OWTF2. Mr CHAN also urged the Administration to gauge the performance of OWTF1 before proceeding with the development of OWTF2 and OWTF3. Mr CHAN Chi-chuen shared a similar view.

(Post-meeting note: The Administration's written response regarding the TIA for the proposed OWTF2 was circulated to members vide LC Paper No. CB(1)182/16-17(02) on 24 November 2016.)

37. AD(NCIP) advised that feasibility studies and Environmental Impact Assessment ("EIA") studies (including TIA) had been conducted for OWTF2. It was estimated that about 70 organic waste collection vehicles per day would use Man Kam To Road and Kong Nga Po Road, and no significant adverse traffic impact on the rush hour traffic of the two roads was envisaged.

38. Mr LAU Kwok-fan expressed concern that the TIA of OWTF2 had not taken into account the heavy traffic demand associated with the future development of a large-scale columbarium accommodating 200 000 niches at the Sandy Ridge Cemetery in Sha Ling. In order to avoid putting undue traffic burden on nearby roads leading to OWTFs, he suggested that the Administration should promote more on-site treatment of food waste at the local level, i.e. schools and public/private housing estates.

39. SEN explained that the traffic flow associated with OWTFs would not be heavy as most of the food waste collection and delivery activities were carried out after the business hours of food establishments. AD(NCIP) added that the TIA of OWTF2 had taken account of the aggregate traffic demand arising from OWTF2 and other existing/planned facilities in the vicinity. AD(NCIP) supplemented that the traffic demand in relation to the future development of the columbarium at the Sandy Ridge Cemetery had been

Action

considered by the TIA of OWTF2.

Monitoring performance of Organic Waste Treatment Facilities

40. Mr Wilson OR enquired about the mechanism for monitoring the performance of OWTF contractors. AD(NCIP) advised that OWTF contractors were under stringent monitoring in accordance with the terms of the relevant Design-Build-Operate ("DBO") contract. Moreover, OWTF projects were required to comply with the established standards stipulated under the Environmental Impact Assessment Ordinance (Cap. 499) and the environmental permits issued by the EIA Authority.

41. Dr YIU Chung-yim enquired if the Administration had made any assessment of the relative weight of different factors, such as the economic cycle and the Government's initiatives to promote food waste reduction at source, which accounted for the undulating trend of the per capita disposal rate of municipal food waste between 2011 and 2015 (Annex A of the Administration's paper). He also enquired about the projected reduction in food waste volume following implementation of OWTF1 and OWTF2.

42. SEN advised that changes in the amount of overall food waste disposal at landfills could be influenced by a number of factors including economic and population growth. He noted that, notwithstanding an increase in 2013, the per capita municipal food waste disposal had seen a declining trend for two consecutive years in 2014 and 2015. DDEP(2) added that against the background that the Gross Domestic Product of Hong Kong in 2015 had increased by 2.4% from 2014 and by 10% from 2011 (i.e. the base year of the Food Waste Plan), and that population in 2015 had grown by 3% from 2011, the decline in per capita food waste disposal in 2014 and 2015 should reflect a progressive behavioral change of the public to reduce food waste driven by measures such as the Food Wise Hong Kong Campaign.

43. As regards the projected effects of OWTFs on food waste disposal, SEN advised that assuming the amount of food waste treated by OWTF1 and OWTF2 could reach their maximum designed capacity of 200 tpd and 300 tpd respectively, the amount of municipal food waste disposed at landfills, which currently stood at about 3300 tpd, would be reduced by about 500 tpd or 15%.

Compost and electricity output

44. Mr CHU Hoi-dick doubted whether the compost produced by OWTFs could be fully absorbed by the local market for organic farms and horticulture

Action

purposes as farming had become a sunset industry in Hong Kong.

45. SEN advised that the bulk of the output from OWTFs would be energy (biogas and/or electricity), coupled with a small amount of compost of about 20 tpd (or about 7 000 tonnes per year). As Hong Kong was a highly urbanized city where demand for compost by local farms was limited, compost should not form the main output of OWTFs. AD(NCIP) added that local demand for compost was about 20 000 to 30 000 tonnes per year. Referring to the demand for the high-quality compost produced by the Kowloon Bay Pilot Composting Plant ("Pilot Plant") which treated source-separated food waste delivered by participants of the Food Waste Recycling Partnership Scheme, there should be demand for the compost output from OWTF1. In response to Mr Holden CHOW's concern that the actual treatment quantity of the Pilot Plant was significantly below its design capacity, SEN pointed out that the one of the objectives of the Pilot Plant was to gather useful information and local experience on collection and treatment of food waste. It was hoped that the operation of OWTFs would benefit from the experience gathered from the Pilot Plant's operation.

46. Mr Kenneth LEUNG stressed that OWTFs should generate surplus electricity to achieve the objective of turning food waste to energy. He enquired if the Administration had estimated the energy efficiency of OWTFs.

47. SEN advised that biogas produced by recycling of food waste in OWTF1 would generate renewable energy output in the form of electricity. AD(NCIP) said that, according to the feasibility study report of OWTF1, about 21 million kWh of electricity would be generated by the facility each year. It was estimated that after meeting the internal demand of OWTF1, about 14 million kWh per year of surplus electricity could be exported upon full operation.

Food waste source separation and municipal solid waste charging scheme

48. Mr CHAN Chi-chuen opined that no matter how many OWTFs would be built, efforts in food waste treatment would be futile without mandatory food waste source separation. He enquired about the Administration's plan, if any, for studying the feasibility of mandatory food waste source separation. Dr KWOK Ka-ki enquired about the timetable for introducing a quantity-based municipal solid waste ("MSW") charging scheme, and mandatory source separation.

49. SEN advised that in order to implement mandatory source separation successfully, not only must there be suitable separation facilities at source,

Action

there should also be sufficient capacity at the receiving end to treat the source separated food waste. Making reference to overseas experiences, such as in Milan of Italy, only about half of the food waste in a city could be source separated after implementation of mandatory source separation of C&I food waste. In the context of Hong Kong, it would take the aggregate designed capacity of OWTF1 and OWTF2 (i.e. 500 tpd) to meet the demand for treating half of the 1 000 tpd of C&I food waste disposed of at landfills in Hong Kong, before any mandatory source separation of C&I food waste could be considered. The Administration aimed to kick start parallel tendering process for the DBO contract for OWTF2 in order to expedite project delivery and provide more accurate estimates on the projected completion date of OWTF2. This would also enable the Administration to map out the legislative framework for mandatory source separation. As regards MSW charging, the Administration aimed to submit the relevant legislative proposal within the 2016-2017 legislative session.

Food Wise Hong Kong Campaign and other food waste reduction/recycling initiatives

50. Ir Dr LO Wai-kwok enquired about the Administration's efforts to encourage more C&I premises and households to participate in food waste recycling schemes, and whether it would make reference to overseas experiences, e.g. Taipei, in this regard. Mr LEUNG Che-cheung enquired about the Administration's work in food waste recycling in public rental housing ("PRH"). Noting the lukewarm response from private housing estates towards the promotion of waste recycling, Mr Wilson OR enquired about the measures to be taken to address the problem. He stressed the need to raise public awareness of the importance of food waste recycling.

51. DDEP(2) advised that over the years, in order to instill a "Waste Not" culture among PRH residents, EPD had worked with the Housing Department to conduct food waste recycling trial schemes in various PRH estates. In 2017, EPD would conduct a consultancy study on territory-wide food waste collection and delivery in Hong Kong, with special emphasis on collection, transportation and storage of food waste, including those in PRH estates.

52. SEN said that the Administration's multi-pronged strategies to tackle food waste and raise public awareness of waste recycling had been making steady progress. A successful example in this regard was the T-PARK in Tuen Mun, which aimed at encouraging positive change in people's attitudes and behaviours towards waste management and resource recovery and recycling. The facility was operated under a DBO contract similar to those of OWTFs and would provide useful reference for the performance management

Action

of OWTFs. SEN said that the authorities in Taipei were drawing reference from the Hong Kong experience in the development of OWTFs.

53. SEN further advised that to encourage the participation of private housing estates in waste recycling, ECF had allocated \$50 million as subsidy for launching the "Food Waste Recycling Projects in Housing Estates" in July 2011, under which funding was provided to support private housing estates to set up on-site food waste recycling facilities, i.e. food waste composting machines, and organize food waste collection and recovery programmes and associated activities. These projects encouraged private housing estates to engage NGOs to organize educational and promotional activities in order to raise residents' awareness towards food waste reduction and encourage their participation in food waste recovery. In the long run, the majority of food waste from private housing estates should be centrally treated at OWTFs as in other advanced economies. AD(NCIP) added that up to September 2016, 36 funding applications, amounting to about \$31 million, had been approved by ECF to support food waste reduction and on-site recycling projects in private housing estates.

54. Mr CHU Hoi-dick suggested that instead of providing subsidies for private housing estates to set up on-site food waste treatment facilities, it might be more effective for ECF to subsidize these housing estates to engage private contractors to collect their food waste. Taking note of Mr CHU's views, SEN said that the Administration welcomed suggestions from members and the public on the use of ECF and the Recycling Fund.

55. Mr HUI Chi-fung opined that from his observation, there was limited behavioural change in the community to reduce domestic food waste despite the Administration's efforts to drive such change. Sharing a similar view, Mr Holden CHOW expressed concern about the low utilization rate of food waste recycling facilities in private housing estates as pointed out by the Director of Audit's Report No. 65. He noted that from November 2011 to June 2015, although ECF had approved funding for 40 private housing estates for implementing food waste recycling projects, only 16 of these estates had commenced/completed the projects, and only 4.6% of the 43 091 households residing in the 16 estates participated in the projects.

56. SEN said that notwithstanding the different views in the community about the effectiveness of the Administration's efforts in driving behavioral change in domestic food waste disposal, the decline in domestic food waste disposal for the past two consecutive years (i.e. 2014 and 2015) remained an objective indicator of the behavioural change.

Action

57. Mr Michael TIEN said that he was a Legislative Council Member returned from the New Territories West geographical constituency. He recalled that when the Administration proposed the West New Territories ("WENT") Landfill Extension in Tuen Mun in 2014, SEN agreed to study the feasibility of setting up waste transfer, compaction and treatment facilities at the entrance of the WENT Landfill Extension to treat some 500 tonnes of uncompacted/untreated food waste from Tuen Mun and Yuen Long before such waste was disposed of at the landfill, in order to minimize adverse environmental impacts (such as odour) arising from the landfill operation. Mr TIEN enquired about the progress in this regard.

58. SEN advised that EPD had commissioned in 2015 a Study on Planning of Future Environmental Infrastructure Facilities for Waste Treatment and Transfer in Hong Kong – Feasibility Study. The Study, which would cover territory-wide waste treatment and transfer facilities, was now in progress and was estimated to be completed in April 2017. At Mr Michael TIEN's request, SEN agreed to provide updated statistics on the daily tonnage of uncompacted/untreated food waste disposed of at the WENT Landfill.

(*Post-meeting note: The Administration's written response was circulated to members vide LC Paper No. CB(1)182/16-17(02) on 24 November 2016.*)

Manpower arrangements for sustaining the implementation of food waste management strategies

59. Ir Dr LO Wai-kyok expressed support for the proposed creation of the supernumerary PEPO post. Mr CHAN Chi-chuen enquired whether the proposed post would be responsible for taking forward mandatory source separation for food waste. In view of the need for introducing mandatory source separation for food waste in the long run, Mr HUI Chi-fung considered that the proposed post should include the relevant duties as well.

60. SEN advised that the proposed supernumerary PEPO post would provide professional input and leadership to the Food Waste Management Group set up by EPD to take forward the Food Waste Plan, including mandatory source separation when appropriate.

61. Mr Tommy CHEUNG said that the Liberal Party would not support the staffing proposal if the duties of the proposed post would include work on a food waste charging scheme, if any. Mr CHEUNG said that, until and unless the Administration had confirmed that the post would not involve work which would be detrimental to the interests of catering industry, he

Action

would not support submission of the proposal to the Establishment Subcommittee. SEN advised that for the time being, the Administration did not intend to charge C&I establishments for their food waste delivered to OWTFs for recycling.

Conclusion

62. The Chairman concluded that with the exception of Mr Tommy CHEUNG, members in general were supportive of the Administration's submission of the staffing proposal to the Establishment Subcommittee.

V. Any other business

Setting up of a subcommittee on refuse collection and resource recovery

63. At the invitation of the Chairman, Mr CHU Hoi-dick briefed the Panel on his proposal on setting up a subcommittee on refuse collection and resource recovery under the Panel ("the proposed subcommittee").

64. The Chairman sought members' views on whether to consider the proposal at this meeting, or to arrange another meeting to discuss the said proposal, together with any other proposals on setting up policy subcommittees under the purview of the Panel. She said that in line with the broad principles adopted for the activation of subcommittees, the number of subcommittees under each Panel operating at the same time should not exceed two. As such, the Panel would need to decide on the priority of setting up policy subcommittees if there were other proposals from members.

65. Mr LAU Kwok-fan indicated that he did not object to Mr CHU Hoi-dick's proposal. However, in view of the Administration's plan to introduce the Waste Disposal (Charging for Municipal Solid Waste) (Amendment) Bill in the 2016-2017 legislative session, he was concerned about possible overlapping of the scopes of discussions under the proposed subcommittee and on the Bill. Further, given that the number of subcommittees under each Panel operating at the same time should not exceed two, he preferred to have more time for considering whether formation of subcommittees on other policy issues should be warranted.

66. Ir Dr LO Wai-kwok said that with the implementation of the municipal solid waste charging scheme in view, review of the policies of refuse collection and resource recovery was an important subject. That said, as there might be other proposals that would also worth considering, he

Action

suggested waiting for a while before deciding on setting up the proposed subcommittee.

67. Mr Jeremy TAM expressed support for Mr CHU Hoi-dick's proposal and early activation of the proposed subcommittee. He took the view that unless there were other substantive proposals on setting up other policy subcommittees put forth at this meeting, the Panel should decide to set up the proposed subcommittee first in order not to waste time waiting for other proposals. Meanwhile, the Panel could still consider other proposals on the formation of subcommittees if there were any.

68. The Chairman asked if any members objected to Mr CHU Hoi-dick's proposal of setting up the proposed subcommittee. Members raised no objection. The Chairman ordered that the proposed subcommittee be formed. She said that if members had other proposals on the formation of subcommittees under the Panel, they might submit the proposals for the Panel's consideration subject to the relevant rules and prevailing principles on the activation and operation of subcommittees under panels.

69. There being no other business, the meeting ended at 4:45 pm.

(Post-meeting note: With the concurrence of the Chairman, who would join the above subcommittee, the first meeting of the subcommittee was scheduled for 15 November 2016 at 3:30 pm. The notice of calling membership and agenda for the first meeting were issued to Panel members on 1 November 2016 vide LC Paper No. CB(1)53/16-17.)