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Report of the Panel on Environmental Affairs for submission to the Legislative Council

Purpose

This report gives an account of the work of the Panel on Environmental Affairs ("the Panel") during the 2013-2014 Legislative Council ("LegCo") session. It will be tabled at the meeting of the Council on 9 July 2014 in accordance with Rule 77(14) of the Rules of Procedure of the Council.

The Panel

2. The Panel was formed by a resolution passed by the Council on 8 July 1998 and as amended on 20 December 2000, 9 October 2002, 11 July 2007 and 2 July 2008 for the purpose of monitoring and examining Government policies and issues of public concern relating to environmental and conservation matters. The terms of reference of the Panel are given in **Appendix I**.

3. The Panel comprises 23 members, with Hon Cyd HO Sau-lan and Hon CHAN Hak-kan elected as Chairman and Deputy Chairman respectively. The membership list of the Panel is in **Appendix II**.

Major Work

Waste management

"Waste Diversion Plan" for the Southeast New Territories Landfill

4. Issues relating to waste management remained high on the agenda of the Panel, in particular those relevant to the extension of landfills. To address Tseung Kwan O ("TKO") residents' concerns on air quality, odour and dust arising from the operation of the Southeast New Territories ("SENT") Landfill,

the Government had proposed the "Waste Diversion Plan" ("the WDP") under which municipal solid waste ("MSW") would be diverted away from the SENT Landfill. The WDP comprised the designation of the SENT Landfill to receive only construction waste and other complementary measures to facilitate diversion of waste through the waste collection system and to minimize the consequential traffic and environmental impacts. In addition, to address complaints from the local community about the odour concern arising from the unsatisfactory hygienic conditions of some refuse collection vehicles ("RCVs"), the Government had proposed legislative amendments to require all RCVs used for delivering waste to landfills, refuse transfer stations and any other new designated waste disposal facilities to be equipped with a metal tailgate cover and a waste water sump tank for more effective avoidance of nuisance arising from their operations.

5. The Panel discussed the administrative and legislative measures relating to the WDP and the funding proposal to subsidize the retrofitting of RCVs to meet the proposed new equipment standards in October 2013.

6. The Panel generally welcomed the proposed improvement measures to address the odour nuisances arising from the SENT Landfill. However, members expressed concern that private waste collectors ("PWCs") would face a significant increase in their operating costs as they had to arrange additional RCV routes to transport the MSW diverted from the SENT Landfill to other landfills and pay a charge if they chose to use the service of refuse transfer stations ("RTS"). As such, PWCs might be reluctant to pay for the use of RTS. Members requested the Administration to review the RTS charging strategy so as to attract more PWCs to use the RTS service, to provide the necessary incentives to promote the use of RTS for MSW collection and compaction, and to set up more refuse collection points with waste compaction equipment in different districts.

7. Noting that some RCVs would have to travel a longer distance to deliver MSW to other landfills for disposal under the WDP, members were concerned about the traffic and environmental nuisances associated with the transportation of waste. They were also concerned that after the SENT Landfill received only odourless waste, a number of RCVs would have to find their ways to RTS for compaction, leading to a sudden increase in the quantities of waste going through the RTS network. Under these circumstances, RCVs, with their loads of refuse, might have to wait outside RTS for a longer time for waste compaction, thereby causing odour nuisance. They further questioned whether the remaining capacities of RTS were adequate for compacting the waste collected by PWCs before transfer to landfills for disposal, and whether the adjacent road network of the existing RTS would be able to cope with a higher traffic load when an increased number of RCVs was going to make multiple collection and disposal trips each day. Members considered it incumbent upon

the Administration to step up the management of RTS and minimize the potential traffic and environmental problems associated with the WDP.

8. Some members had reservation about the WDP and commented that the WDP did not resolve the environmental nuisance arising from the operation of the three strategic landfills. They requested the Administration to proactively explore the feasibility of setting up food waste treatment facilities in residential estates and commercial/industrial buildings so that odorous food waste would not be mixed with other rubbish for collection and disposal at landfills. Noting that RTS could reduce the amount of MSW delivered to landfills and help minimize the associated environmental nuisance, members also urged the Administration to explore the provision of more RTS in various districts for receiving and compacting MSW before the waste was transferred to landfills for disposal.

9. On the subsidy scheme to assist the waste collection trade to retrofit their RCVs, the Panel generally supported it. Members urged the Administration to closely monitor the retrofitting process to ensure that all private RCVs would meet the proposed equipment standards, and to consider developing a set of technical specifications for RCVs for compliance by the waste collection trade in the long run. They also requested the Administration to review the effectiveness of the scheme in enhancing the overall environmental performance of RCVs. On the other hand, a member expressed concern as to whether the subsidy scheme would give rise to "transfer of benefits" to the waste collection trade.

Municipal solid waste charging

10. The Panel continued to monitor the progress of the public engagement on MSW charging. The Government conducted a public consultation in early 2012 to deliberate the issues pertaining to MSW charging with the community and relevant stakeholders. Since the public consultation had affirmed the direction of a quantity-based MSW charging system for Hong Kong, the Administration invited the Council for Sustainable Development ("SDC") to launch a second-stage public engagement in September 2013 to gauge views on the implementation of the charging scheme. In November 2013, the Panel was consulted on the issues raised for the public engagement. The Panel also received deputations' views on the implementation of MSW charging in Hong Kong at its meeting on 16 December 2013.

11. The Panel was advised that the second-stage public engagement adopted a bottom-up and stakeholder-led approach to solicit public views on how best to implement MSW charging in Hong Kong as well as to raise public awareness about the importance of behavioural changes to achieve waste reduction at source. The Invitation for Response document ("the IR document")

entitled "'Waste Reduction by Waste Charging · How to Implement?" issued by SDC served as a discussion framework to impart information and initiate public dialogue. Four key considerations categorized under "Charging Mechanism", "Coverage of Charging Scheme", "Charging Level" and "Recycling" had been identified in the IR document for public views.

12. Members generally supported the introduction of MSW charging in Hong Kong. Members, however, opined that MSW charging was only one of the measures to reduce waste and the Administration should make greater efforts to recycle waste. It should also invest in recycling operations and formulate a holistic development plan for the recycling industry. Since waste charging would incentivize the community to recycle waste, members urged the Administration to give impetus to the market for recyclable materials, in particular those of relatively lower commercial value.

13. Members were concerned that there might be a higher tendency for fly-tipping following the implementation of MSW charging, and suggested that a comprehensive monitoring system should be put in place to deter non-compliance with the charging scheme.

14. Some members criticized that the high waste generation rate in Hong Kong was attributable to the Government's lack of resolve in implementing source separation of waste. They urged the Administration to introduce legislation to mandate waste separation at source in Hong Kong.

15. On the level of charging, members considered that MSW charging should aim at encouraging waste reduction, not cost recovery. The future MSW charge should be set at levels sufficient to drive behavioural change towards waste reduction. Given the unique settings and city characteristics of Hong Kong, some members suggested the adoption of a "hybrid" charging system within a building/estate, under which some households would use pre-paid designated garbage bags for waste disposal while some other households which were not willing to use pre-paid bags would pay the MSW charge collectively based on the volume/weight of waste disposed of by all of them.

16. As for the charging mechanism, members generally considered that MSW charging based on the total weight or volume of garbage disposed of by a building/estate (i.e. the "by building" charging mechanism) might not provide adequate economic incentives to reduce waste by individual waste producers. Such mechanism also had the possible drawback of unfairness as all the households in a building/estate were required to share the MSW charge regardless of the actual amount of waste they disposed of. MSW charging based on the volume of waste disposed of by individual households could create more direct incentive.

17. Some members expressed concern about the implementation of MSW charging in single-block buildings without building management. There was also the view that the Administration should consider adopting a phased approach to put in place MSW charging in buildings/estates where implementation was more feasible to gain some experience before extending the charging scheme to cover the entire Hong Kong. Some other members suggested that MSW charging should be implemented in different sectors by phases and others supported that a trial period be provided to familiarize households with the charging scheme before making it mandatory.

18. Members further supported that the MSW charge should be offset by a corresponding reduction in rates to avoid double levy as charges for waste collection had already been included in government rates. Besides, the Panel was concerned about the financial burden of MSW charging on low-income families and opined that concessionary arrangements and relief measures should be worked out to reduce the impact of MSW charging on the grassroots. For example, pre-paid garbage bags could be distributed to low-income households free of charge to ease their financial burden.

Producer Responsibility Scheme on glass beverage bottles

19. The Administration launched a three-month public consultation in February 2013 to consult the public on whether and how to pursue a mandatory producer responsibility scheme ("PRS") on glass beverage bottles ("GBBs"). In November 2013, the Administration reported the findings of the public consultation exercise and consulted the Panel on the way forward with regard to the PRS.

20. According to the Administration, on the whole, the public was supportive of introducing a mandatory PRS on GBBs. Based on the consultation results, it had made adjustments to the proposed PRS on GBBs. Firstly, the Administration proposed that more than one Glass Management Contractors ("GMCs") would be appointed by way of open tender to collect and treat waste glass bottles. Secondly, licensing control for glass recyclers, and importers and exporters of waste glass bottles would be explored so that they would be subject to permit control to ensure the meeting of comparable environmental standards if the recycling processes were undertaken outside Hong Kong. Lastly, in line with the "polluter pays" principle, a recycling fee would be imposed under the Product Eco-responsibility Ordinance (Cap. 603) on beverage suppliers who supplied GBBs for local consumption in Hong Kong.

21. Members supported the proposed PRS on GBBs, but they were concerned about the details of implementation. Since the proposed PRS on GBBs did not cover other types of beverage containers, there was the concern

that some beverage suppliers might switch to aluminium cans or plastic bottles for their beverages, resulting in an increase in the disposal of other types of beverage containers. There was the suggestion that the Administration should provide adequate incentives to beverage suppliers to encourage them to recover their own GBBs for future reuse, thereby minimizing the material loss arising from the process of turning waste glass into works materials. Consideration could also be given to collaborating with glass manufacturing plants on the Mainland to use waste glass bottles to produce glassware products.

22. The Administration responded that most of the glass-bottled beverages were alcoholic drinks which would unlikely be sold in aluminium cans or plastic bottles. As such, the proposed PRS on GBBs would unlikely increase the use of other types of beverage bottles significantly. To encourage local glass-bottled beverage manufacturers to continue with their own corporate reuse/recycling schemes, the Administration proposed to introduce an exemption mechanism such that these manufacturers would not be subject to the recycling fee. Since there was no glass manufacturing plant in Hong Kong and export of waste glass to other places might involve practical difficulties, the Administration considered it more cost-effective to explore and develop new recycling outlets for waste glass bottles locally. It would explore further broadening the demand for recycled glass from both the public and private sectors.

23. Noting that a recycling fee would be imposed on beverage suppliers who supplied glass-bottled beverages for local consumption in Hong Kong, members were concerned about the financial implications of the recycling fee on the public as beverage suppliers might recover the recycling fee wholly or partially from consumers. They also opined that the recycling fee collected should be ploughed back to acquire cleaning machines to clean food/sauce bottles so that the coverage of the proposed PRS could be extended to other waste glass bottles as well.

24. On the scope of the proposed PRS, members took the view that the scheme should cover other waste glass bottles. Although the imposition of a recycling fee on all types of glass bottles might give rise to livelihood concerns, they expected that the community would be willing to pay the fee given the environmental benefits to Hong Kong.

25. Members were concerned that the appointment of GMCs to collect and treat waste glass bottles might deprive existing waste recyclers of their business and employment opportunities. To prevent monopolization of services, the Administration should ensure that there would be a level playing field for GMCs and other waste glass recyclers in the market. The Administration was also urged to take into account the local characteristics of different regions when working out the GMC contracts so as to ensure a fair distribution of business

among the GMCs and to maintain the cost competitiveness of the contracts. The Administration responded that in the light of the views received during the public consultation, it had revised the original proposal and would appoint more than one GMC by way of open tender so that more service providers could participate in the collection of GBBs. The GMCs to be appointed would be required by contract to maintain a sufficient network of collection points such that waste producers could conveniently participate in waste glass bottle recycling. They would also be encouraged to collaborate with non-governmental organizations ("NGOs") to collect waste glass bottles at the district level.

26. Members saw the need to broaden the demand for recycled glass. They suggested that if not all the waste glass bottles collected under the proposed PRS could be consumed in Hong Kong, the Administration should consider identifying outlets on the Mainland for recycled glass materials. The Administration responded that all the waste glass bottles recovered under the proposed PRS would be reused in public works projects. It would consider the suggestion of developing an export market on the Mainland for recycled glass materials as and when appropriate in future, and broaden the demand for waste glass materials through promoting "green procurement".

27. There was the concern that it might be difficult for some members of the public to have their recyclables properly cleansed before bringing them to the collection points. Members asked whether the Administration would consider separating cleansed recyclable waste materials from those not yet properly cleansed in the collection points. The Administration advised that as Hong Kong was of high development density and had a complicated mix of building use, recyclable waste materials which had not been properly cleansed might cause environmental nuisance in the local communities. As such, the Administration considered it more desirable for individual waste producers to rinse their recyclables before depositing them into recycle bins.

Handling of Waste Electrical and Electronic Equipment ("WEEE") and WEEE Treatment and Recycling Facility

28. In April 2014, the Panel was consulted on the Administration's plan to handle waste WEEE through a new mandatory PRS and to develop the WEEE Treatment and Recycling Facility ("WEEETRF"). According to the Administration, about 70 000 tonnes of WEEE were generated in Hong Kong annually, most of which was exported for reuse or recovery of valuable materials. In anticipation that the demand for second-hand products overseas would decline as a result of developing countries' progressive economic development and tightening of import control over WEEE, the Administration proposed to regulate five types of products under the mandatory PRS on WEEE, namely, washing machines, refrigerators, air conditioners, televisions and

computer products (collectively as "regulated electrical equipment" hereafter), as well as to develop WEEETRF at a three-hectare site at the EcoPark in Tuen Mun so as to have proper management of WEEE locally and support the long-term development of the recycling industry.

29. While the Panel was generally supportive of the mandatory PRS on WEEE and the development of the proposed WEEETRF, members expressed various views on the details of the proposals.

30. Members expressed concern that the novelties in the functions and designs of electronic equipment such as notebook computers and tablet computers might make it difficult for the Administration to define in clear terms the scope of the regulated electrical equipment. They considered that the proposed PRS on WEEE should allow some flexibility in defining the scope of individual regulated electrical equipment to cater for the rapid development of technologies.

31. Noting that under the mandatory PRS on WEEE, a recycling fee would be collected upon the local distribution of the regulated electrical equipment to finance the collection and treatment cost of the equipment, members were concerned that without stipulating the percentage of the recycling fee to be shouldered by different stakeholder groups, such as manufacturers, importers, distributors, retailers and consumers, the recycling fee might ultimately be shifted wholly or partially to consumers, thus posing a financial burden on them. The proposed PRS would also tantamount to shifting the cost of the overall collection and treatment of WEEE from manufacturers, importers, distributors and retailers to the general public. Members held the view that as the Administration planned to develop a Community Green Station ("CGS") in each of the 18 districts to support recycling at the community level and consumers might dispose of their old electrical equipment at CGSs, it was unfair for consumers to pay the recycling fee if they did not use the take-back service provided by the sellers of new equipment. The Administration was urged to enhance its efforts to protect the interests of consumers.

32. Members further pointed out that different types of WEEE required different treatment processes to remove the harmful substances and recover valuable materials for resale. To prevent the proposed WEEETRF from vying with private WEEE recyclers for profits, a member opined that the proposed WEEETRF should undertake the recycling of toxic and hazardous electrical equipment which required sophisticated treatment processes and were often costly for small-scale waste recycling operators. On the other hand, some members were concerned that the problem of "cherry picking" might arise if second-hand dealers or private recyclers chose to focus their business on recycling electrical equipment of high market value while the proposed WEEETRF would only be allowed to recycle toxic and hazardous equipment

which often required complicated treatment processes but had low commercial value in the second-hand market.

33. Members also suggested that the Administration should reserve adequate space in the vicinity of the project site for the expansion of the proposed WEEETRF as more and more electrical equipment would be treated and recycled locally.

34. The Panel supported the submission of the proposed WEEETRF to the Public Works Subcommittee ("PWSC") for consideration.

Hong Kong's municipal solid waste recovery rate and handling of imported waste

35. In March 2014, the Panel received an update on Hong Kong's MSW recovery rate and handling of imported waste. According to the Administration, in view of the unusual substantial fluctuation in "domestic export" figures on waste plastics in recent years, the Environmental Protection Department ("EPD") commissioned an independent consultant in late 2012 to conduct a detailed study to ascertain the conditions of generation, recovery and disposal of waste plastics in Hong Kong and to examine whether the method currently used to estimate the quantity of waste recovered was appropriate.

36. The Panel was gravely concerned about the disposal of imported waste locally. Noting that the quantity of imported plastic recyclables had exceeded that of exported plastic recyclables by a significant amount in the past five years, members enquired about the whereabouts of the imported plastic recyclables that had not been exported, and whether there might be large loads of imported plastic recyclables being transported to landfills or RTS for disposal.

37. The Administration assured members that EPD had not found large loads of imported plastic recyclables being transported to landfills or RTS for disposal. Nevertheless, due to the implementation of the "Operation Green Fence", the Mainland authorities had tightened control on imported waste and recyclables into the Mainland since February 2013. As such, some locally-generated plastic recyclables which were of low quality could not be exported to the Mainland and some had been delivered to landfills for disposal. The Administration also explained that imported plastic recyclables might be re-exported under another classification category and there might be a time lapse between the import and export of plastic recyclables. As such, the quantity of imported plastic recyclables had exceeded that of exported plastic recyclables in the past five years.

38. Given that there were different grades of imported plastic recyclables, members asked whether measures had been put in place to prevent the import or re-export of low-grade recyclables which contained a lot of waste materials that would end up in landfills and whether the Administration had been keeping record of the import and export of plastic recyclables with breakdown by their gradings. Members further expressed concern that while EPD had launched the "Disposal Arrangement of Locally Generated Waste Plastics" in June 2013 to prevent illegal disposal of imported plastics in Hong Kong and disposal of locally generated plastic recyclables by recyclers at landfills or RTS, there were two cases where recyclers had been arranged to deliver about 35 tonnes of locally generated waste plastics to landfills for disposal.

39. The Administration advised that in response to concerns of imported plastic recyclables being stranded in Hong Kong, EPD had stepped up container checks on imported recyclables with the Customs and Excise Department ("C&ED") between mid-August and mid-November of 2013. Under a project "Operation Green Shield" jointly launched by EPD and C&ED, a total of 304 containers declared to be carrying imported waste plastics had been inspected during the period. There was no unlawful import of contaminated plastic waste amongst these shipments.

40. Members were also concerned that Hong Kong did not have much control over imports and waste materials could be imported from different countries. Since the Mainland had tightened the control over imported recyclables, they opined that Hong Kong should take corresponding measures to strengthen control, lest the container loads of recyclables would end up in landfills. Besides, as the cleanliness of recyclables would affect their recycling values, public education on the "clean recycling" concept should be enhanced.

41. In view of the Administration's explanation that recyclers might have mixed up waste plastics that should have belonged to the "re-export" category with those belonging to the "domestic export" category during customs declaration, thereby affecting the accuracy of estimation on the quantity of waste plastics recovered in Hong Kong, members urged the Administration to ensure that recyclers would understand and comply with the customs declaration requirements.

Promotion of the recycling industry

42. In December 2013 and January 2014, the Panel discussed the Administration's measures to promote the sustainable development of the recycling industry. The Panel was advised that the Steering Committee to Promote the Sustainable Development of the Recycling Industry, which was led by the Chief Secretary for Administration, had been set up in August 2013 to step up concerted efforts in reducing waste at source and promoting the

development of the recycling industry.

43. Some members expressed concern that recyclables of low commercial values (e.g. waste plastics) did not have sufficient market outlets and ultimately ended up in landfills. To reduce the pressure for waste treatment, the Administration should develop markets for different types of recyclable materials. It should also invest in recycling operations by providing subsidies to waste recyclers in the recycling of recyclables with low commercial values.

44. Some other members opined that the Administration should not only encourage the public to separate waste at source for collection and processing by local recyclers, it should also identify new approaches to drive the sustainable development of the recycling industry. The Administration was also requested to consider providing direct or indirect support and assistance to waste recovery or treatment, including introducing supportive measures in terms of taxation, technology, land, funding or regional collaboration with some Mainland cities.

45. There was also the view that the Administration should legislate for source separation of waste in Hong Kong as this would be more cost-effective than introducing different schemes and programmes to encourage the public to separate waste at source. Taking into consideration that some recycling operations might cause environmental nuisance to nearby residents, the Administration was urged to help identify suitable sites for local recyclers to develop their business. The Environment Bureau should also work closely with relevant policy bureaux and government departments to facilitate different recycling operations and create a favourable business environment for the recycling sector.

46. Some members criticized that the Administration did not have a comprehensive waste management plan, in particular on how to tackle the food waste problem. Taking into consideration that the current practice of disposing of food waste at landfills was environmentally undesirable as it would create odour nuisance and generate leachate that required further mitigation measures to deal with, these members urged the Administration to set aside a recurrent expenditure of \$2 billion per year to promote food waste reduction, source separation and recycling in different sectors and districts.

47. The Panel expressed support for the Community Recycling Network ("CRN") which was a territory-wide district-based network for promoting waste reduction and recycling. The Panel also supported the setting up of CGSs in each of the 18 districts to support recycling at the community level and promote environmental education. However, members were concerned that some recycling operations in the collection points under CRN had caused environmental nuisance to nearby residents. They further relayed that some District Councils ("DCs") were concerned about the poor hygiene conditions of

CGSs and there had been environmental complaints against some roadside recycling shops which reflected adversely on the recycling industry. Members opined that the collection points under CRN should not be located in residential areas to avoid causing nuisance to residents in the neighbourhood, and the Administration should introduce measures to regulate the safety and environmental hygiene conditions of CGSs.

48. On the other hand, some members were of the view that as CGSs had a role to play in environmental education, it was not desirable for them to be located far from residential areas. Besides, CGSs would be the logistical hub for recycling operations where NGOs would liaise with local communities and waste recyclers to collect recyclables for processing. If they were far away from urban areas, the high transportation costs and long travelling time might undermine the business viability of the recycling industry.

49. The Administration responded that it would try to strike an appropriate balance between the need to facilitate the collection of recyclables and the need to minimize any possible environmental impact on nearby residents when identifying suitable locations for CGSs.

50. Noting that the local recycling industry relied heavily on the export of recyclables collected, some members expressed concern that local recyclables might not have sufficient market outlets as some countries had tightened up their national standards for imported waste. They urged the Administration to step up efforts to enable the recycling industry to realize its full potential such that recyclables recovered from the community could be consumed locally. They further enquired how the future land use planning of Public Cargo Working Areas ("PCWAs") would facilitate and support the development of the recycling industry. The Administration advised that it would consider identifying suitable PCWA berths for bidding by the industry for their exclusive use to provide local waste recyclers with stable export facilities to support their recycling activities.

51. The Panel has scheduled to hold a special meeting in July 2014 to further discuss the Administration's measures to promote the recycling industry and establishment of the Recycling Fund which was announced in the 2014 Policy Address.

Environmental infrastructure projects

52. The Administration proposed to construct the Integrated Waste Management Facilities ("IWMF") on an artificial island near Shek Kwu Chau ("SKC"), which is located south of Lantau Island and between Cheung Chau and the Soko Islands. During the last term of LegCo, the Administration presented the funding proposal of IWMF Phase 1 to the Panel in April 2012. At that time,

members were concerned about the close proximity of the project site to Cheung Chau and the strong opposition from Cheung Chau residents and environmental groups. In view of the various issues which were yet to be resolved, the Panel did not support the submission of the funding proposal to PWSC.

53. When the Administration consulted the Panel on the extension of the three existing landfills at Northeast New Territories ("NENT"), West New Territories ("WENT") and SENT in May 2013, the Panel objected to the SENT Landfill extension project in view of the odour, traffic and environmental issues pertinent to the operation of the landfill.

54. In February 2014, the Administration re-submitted the funding proposals for the IWWMF project and the extension of the SENT Landfill to the Panel for consideration. After discussing the proposals at its meeting on 24 February 2014, the Panel held two special meetings in March 2014 to receive public views on these projects.

Integrated Waste Management Facilities Phase 1

55. The Panel was generally of the views that the growing amount of waste generated was challenging to Hong Kong and each district in the territory should fairly share the burden of waste disposal. Betterment measures, such as reduction in electricity tariff and waste charges, should be provided as compensation for residents living in the vicinity of waste treatment and disposal infrastructures. In particular, some form of compensation should be provided to Cheung Chau residents, who were worried about the impacts of IWWMF Phase 1 on public health and air quality, to make it easier for them to accept the project. Noting that the Administration planned to implement the proposed works and follow-on operation of IWWMF Phase 1 under a Design-Build-and-Operate ("DBO") contract, some members suggested splitting the contract for the reclamation and construction works so that the cost of each contract would be lowered.

56. The Administration responded that IWWMF Phase 1 was a large-scale infrastructure project which had to be completed under a tight schedule. Implementing the design, construction and operation of the project under one single DBO contract could achieve synergy and be more efficient. As regards the provision of betterment measures to affected residents, the Administration advised that it was not the prevalent practice of overseas countries to provide financial subsidies to affected residents. It would explore how the architectural and landscape design of IWWMF Phase 1 could blend into the surrounding green and natural environment of SKC to make it a welcome facility to the public.

57. Members also expressed concern about the potential impacts of the reclamation works of IWMF Phase 1 on fisheries resources and the fisheries industry as the waters in the vicinity of the project site were a fishing ground for Cheung Chau fishermen.

58. Some members commented that even if IWMF Phase 1 was commissioned, it could only handle 3 000 tonnes of MSW each day and there would still be close to 7 000 tonnes of waste that required treatment and disposal each day. They therefore urged the Administration to consider introducing legislation for source separation of waste so that recyclables could be segregated from the waste stream for proper treatment and become reusable materials, thereby reducing the volume of waste to be disposed of. Consideration should also be given to prohibiting recyclable waste materials from being landfilled by legislation.

59. On technology selection, the Panel noted that the moving grate incineration technology would be adopted for IWMF Phase 1 based on the merits of its environmental performance, technological soundness, reliability, operation adaptability in waste treatment and cost-effectiveness. Some members were concerned whether the moving grate incineration technology had become outdated and new technologies should be adopted. They urged the Administration to adopt an open attitude in the selection of technology for IWMF Phase 1. On the other hand, a member opined that the plasma gasification technology and the gasification and pyrolysis technologies were not yet mature and were not suitable for use in large-scale treatment of MSW. He supported the adoption of the moving grate incineration technology as it remained to be the mainstream MSW treatment technology which was safe and reliable.

60. The Administration responded that since IWMF Phase 1 would be Hong Kong's significant back-bone infrastructure for MSW treatment, it was imperative that the facility should adopt the most well proven technology so that it could operate reliably and was able to handle a sizeable volume of MSW throughout the year. IWMF Phase 1 would adopt the modern 3T moving grate incineration technology (i.e. operating at a high temperature of over 850°C, with high turbulence and allowing residence time of at least two seconds for flue gas). The emissions from IWMF would not only comply with the European Union standards, the predicted impact of the IWMF's emissions on the air quality of Cheung Chau and South Lantau would also fully comply with the air quality objectives.

Landfill extension

61. Regarding the SENT Landfill extension project, members generally were concerned how the Administration could allay public concerns about the

environmental nuisances arising from the operation of landfills and gain support from residents on landfill extension.

62. Members commented that whilst a series of measures had been implemented to try to improve the environmental hygiene in the vicinity of the SENT Landfill, including subsidizing private RCVs to install metallic tailgates and waste water sump tanks and strengthening enforcement actions against illegal fly-tipping by closed-circuit television, the environmental concerns of TKO residents had not yet been effectively addressed. The Administration had failed to make concrete achievements in waste management and show its commitment to step up waste recovery and recycling. The public were also concerned that the Administration might not proactively reduce waste and maximize waste recycling if the funding proposals for landfill extension and IWMF Phase 1 were approved.

63. Some members criticized that due to poor urban planning, newly erected residential buildings had become increasingly close to the SENT Landfill and TKO residents had been affected by the environmental problems caused by landfill operation for a long time. It would be unfair for TKO residents to continue to bear the consequences of the unsatisfactory progress in the implementation of the Administration's waste management strategy. They further relayed the concerns of Sai Kung District Council ("SKDC") and local residents about the problems of odour, air pollution, environmental hygiene, dust and transport caused by the operation of the SENT Landfill over the years and pointed out that SKDC had passed various motions against the extension of the SENT Landfill at previous meetings.

64. Some other members doubted whether the Administration could achieve the target of reducing the per capita waste disposal level of MSW by 40% by 2022 through the implementation of the five-pronged approach sent out in the document "Hong Kong: Blueprint for Sustainable Use of Resources 2013-2022". They commented that the Administration had not provided adequate support and assistance to the recycling industry or created a favourable business environment for different recycling operations. They opined that consideration should be given to providing direct subsidies to the recycling sector on the basis of the quantity of waste recycled, and that the Administration should speed up the progress of formulating tailored support measures for different types of recyclable materials and highlight the value of resources that could be recovered from waste.

65. There was also the view that the way forward for waste management should be increasing waste recycling and recovery instead of landfill extension and development of waste infrastructures. The Administration was urged to proactively promote waste reduction, recycling and recovery on all fronts and co-ordinate the efforts from relevant policy bureaux and government

departments to tackle the imminent waste problem that Hong Kong was facing. To help the general public to participate in waste separation, the Administration was requested to provide adequate recycling facilities at district level. These community recycling facilities would in turn provide job opportunities for the grassroots and encourage the public to take part in recycling and other environmentally friendly activities. By making good use of waste and recyclables, a circular economy would be developed in Hong Kong.

66. Some members pointed out that while the waste collection trade and business associations were mostly in support of the funding proposals for landfill extension and IWMF Phase 1, there was strong opposition from residents living in the vicinity of the proposed waste management facilities. They held the view that each district in the territory should fairly share the burden of waste disposal. Requiring waste producers to shoulder waste management responsibilities could encourage them to reduce waste and recycle resources as far as possible, while ensuring the recovery of materials with economic value and hence achieving a sustainable circular economy.

67. Some other members requested the Administration to consider the suggestions put forth by some local green groups to implement MSW charging in all sectors, extend the coverage of PRSs to different products, review the Construction Waste Disposal Charging Scheme, promote the sustainable development of the recycling industry on all fronts, prohibit the disposal of recyclable waste at landfills or waste-to-energy facilities and extend the existing landfills in phases subject to the effectiveness of different waste reduction measures. Some members were of the strong view that the Administration should implement mandatory waste separation at source to drive behavioural change in waste reduction, as otherwise any landfill extension or development of waste-to-energy facilities would not serve any useful purpose in the long run if the public continued to generate a large amount of waste. The Administration should in parallel put in place a comprehensive and holistic waste management plan setting out the whole spectrum of waste issues ranging from waste reduction, recycling, and recovery to disposal.

68. The Administration assured members that it had been actively responding to the views expressed by residents living in the vicinity of landfills. District liaison groups would be set up in some districts to monitor the management and operation of waste management facilities (including landfills) in the districts and different improvement measures would be rolled out to resolve the environmental nuisances caused by the SENT Landfill.

69. Members who supported the extension held the view that landfills were an indispensable part of Hong Kong's waste treatment and there was a genuine need to extend them in a timely manner. They noted that the discussion of landfill extension and construction of waste-to-energy facilities

had been going on for many years. If decisions were not made, Hong Kong would not have a waste-to-energy facility in the near future to handle its growing amount of waste. While expressing support for the funding proposals for landfill extension and IWMF Phase 1 at this stage, these members urged the Administration to address the problems of odour, air pollution, environmental hygiene, dust and transport caused by the operation of the landfills and enhance communication with DCs, local residents and relevant stakeholders on the operation and management of the waste management facilities located in their districts. There was also the suggestion that the Administration should gradually reduce landfilling and scale down the extension when different waste reduction measures were carried out effectively and IWMF Phase 1 commissioned its operation.

Decision of the Panel

70. At the meeting on 28 March 2014, the Panel negated the motion that "This Panel objects to the Southeast New Territories Landfill extension project", and the amended motion that "This Panel objects to the proposed extension of the Southeast New Territories Landfill, the Northeast New Territories Landfill and the West New Territories Landfill unless the Government can reach a consensus with the communities where the three landfills are located." After voting, the Panel supported the submission of the funding proposals for the landfill extension projects and IWMF Phase 1 project to PWSC for consideration.

Visit to Europe on thermal waste treatment facilities

71. A delegation of the Panel comprising nine Panel members conducted an overseas duty visit to the United Kingdom, the Netherlands, Denmark and Sweden from 2 to 8 March 2014 together with the Administration to study the four countries' experience on the development and operation of thermal waste treatment technologies, i.e. the moving grate incineration technology, plasma gasification technology, and gasification and pyrolysis technologies. A report on the visit will be issued separately.

72. After the visit, the delegation held an exhibition of the photographs taken and the souvenirs and publications received in the Dining Hall of the LegCo Complex on 26 March 2014 to brief other LegCo Members and the media on the visit. The exhibition was then moved to the Exhibition Area and the LegCo Library and opened to the public from 28 March to 30 April 2014.

Organic Waste Treatment Facilities Phase 1

73. The Panel was last consulted on the Organic Waste Treatment Facilities ("OWTF") Phase 1 project, which would be located in Siu Ho Wan,

North Lantau, in November 2010. In March 2014, the Panel was updated on the project cost estimate. As advised by the Administration, the estimated project cost presented to the Panel in November 2010, which was \$489 million in money-of-the-day ("MOD") prices, was an indicative figure based on an initial, broad-brush scheme. According to the re-tendering exercise conducted in February 2013, the Administration estimated that the capital cost of the OWTF Phase 1 project would be \$1,532.8 million in MOD prices.

74. With the exception of one member who objected to the project due to the Administration's faulty strategy, the Panel generally supported the Administration to expeditiously take forward the development of OWTF Phase 1 to recycle source-separated food waste to useful products and minimize the reliance on landfill disposal. Nevertheless, they were concerned about the increase in the capital cost of the project and considered that the Administration should explore room for reducing the capital cost. The Administration explained that the main reason for the difference between the latest project cost and the initial estimate in 2010 was the significant increase in the costs of capital works projects in recent years and the additional provisions to provide sufficient and robust treatment capacity of OWTF Phase 1, which included the pre-treatment facilities to render the food waste collected suitable for anaerobic digestion, the increased waste water treatment requirements, the environmental mitigation and monitoring measures and the natural terrain and slope protection cum mitigation works.

75. Given that the Administration had introduced a guaranteed food waste tonnage of 50 tonnes per day for OWTF Phase 1, members doubted whether the amount of food waste to be recycled at the facility would meet the guaranteed tonnage. The Administration responded that in 2012, Hong Kong produced about 3 300 tonnes of food waste per day, of which over 800 tonnes were generated from the commercial and industrial ("C&I") sector. Since the C&I sector would be the first to use OWTF Phase 1, it was expected that OWTF Phase 1 could handle 200 tonnes of food waste soon after it was commissioned in 2016.

76. Noting that OWTF Phase 1 would recover energy from food waste to generate electricity to meet its internal demand, members urged the Administration to proactively explore the viability of uploading the surplus electricity to the existing power grid. According to the Administration, it was estimated that about 14 million kWh of surplus electricity could be exported per year upon the full operation of OWTF Phase 1. It planned to export part of the surplus electricity to the nearby government facilities, including the Siu Ho Wan Water Treatment Works and the Siu Ho Wan Sewage Treatment Works, as well as the existing power grid.

77. There was the concern that the potential odour and hygiene problems of OWTF Phase 1 might reduce the attractiveness of Lantau Island to tourists and visitors. The transportation of food waste to OWTF Phase 1 might also increase the traffic flow and cause traffic congestion. The Administration responded that in conducting site search for the facility, it had examined the potential environmental and traffic impact of the project on Siu Ho Wan. It anticipated that there should not be a significant increase in traffic flow or any adverse traffic impact on Siu Ho Wan.

78. In response to members' enquiry about the long-term strategy to tackle the problem of food waste in Hong Kong, the Administration advised that it planned to develop more OWTF in different districts for collecting and recycling source separated food waste. It was envisaged that Hong Kong needed to build a network of around five to six OWTF. OWTF Phase 1 was expected to be commissioned in 2016 and the environmental impact assessment ("EIA") study for OWTF Phase 2 had been completed. A suitable site had also been identified for constructing OWTF Phase 3 and the EIA study for the project would be taken forward shortly.

Restored Landfill Revitalization Funding Scheme

79. As announced by the Chief Executive in the 2014 Policy Address, the Government has earmarked \$1 billion to set up the Restored Landfill Revitalization Funding Scheme ("the Funding Scheme") for application by non-profit-making organizations and national sports associations to develop recreational facilities or other innovative proposals at restored landfills for community use. In June 2014, the Administration consulted the Panel on the Funding Scheme and sought members' support for making a submission to the Finance Committee ("FC") for the non-recurrent funding of \$40 million to meet the starting costs and initial operating deficits of projects under the Funding Scheme.

80. While some members supported the Funding Scheme to make more gainful use of restored landfills, some other members expressed concern that the development potential of restored landfills would be limited as restored landfill sites were in general not suitable for large-scale construction or industrial activities and could only be used for recreational purposes. Moreover, the areas of the seven restored landfill sites (particularly flat areas) available for development were relatively small. There were also concerns about the management capability of funding applicants and the financial viability and sustainability of their projects which were required to be non-profit-making in nature. Some members opined that it would be more practicable for the Administration to consider expediting different after-uses of the restored landfills by itself through the public works programme. Some other members requested the Administration to consider resuming the land granted to private

clubs or the golf courses in Fanling and then relocating these facilities to restored landfill sites so as to release the land occupied by these facilities for other uses of higher demand in the community, including residential use.

81. After voting, the Panel did not support making a submission to FC for the non-recurrent funding of \$40 million to meet the starting costs and initial operating deficits of projects under the Funding Scheme.

Pilot Green Transport Fund

82. The Pilot Green Transport Fund ("the Fund") was set up in March 2011 with \$300 million to encourage the public transport sector and non-profit organizations providing transport services to their clients to test out innovative green and low carbon transport technologies, including electric vehicles ("EVs"). In March 2014, the Panel received an update on the operation of the Fund.

83. Noting that most of the fund recipients were large companies, the Panel expressed concern as to whether non-profit organizations had less advantage in applying for the Fund. The Administration responded that while large companies were more interested to try out new technologies and had greater potential to put the technology under trial into use upon successful trial, the Fund was applicable to business of different types and sizes. EPD was also planning to organize more briefing sessions for fund recipients, the relevant trades and interested parties to share their experience in using green vehicles and transport technologies. It was expected that the sharing of successful experience could pave way for the wider application of new green vehicles and transport technologies.

84. A member pointed out that the investment return of using new green vehicles and transport technologies was crucial when the transport trades considered procuring new green vehicles or trying out new transport technologies. Given the relatively high cost of procuring new green vehicles and transport technologies, the Administration should provide information on the investment return of using new green vehicles and transport technologies. A better investment return would incentivize the transport trades to continue to use green vehicles and technologies even after the Fund ceased to receive application.

85. Some members were concerned about the cost-effectiveness of the Fund in promoting green transport. They opined that to promote the wider use of EVs in Hong Kong, the Administration should consider providing adaptors in different battery charging facilities so that EVs of different models could undergo battery charging in all premises equipped with charging facilities of different technical standards.

86. Some other members suggested promoting the use of electric bicycles in Hong Kong. The Administration responded that in considering whether or not to promote the use of electric bicycles, road safety was the prime concern. Electric bicycles to be used on roads of Hong Kong had to be registered with and licensed by the Transport Department, or else their use would be illegal. In assessing whether an electric bicycle was suitable and safe for use on public roads, the Transport Department would examine the electric bicycle in accordance with the requirements of relevant ordinances and regulations, taking into consideration its overall safety and performance on roads, as well as its impact on other vehicles and road users. The members urged the Administration to strike an appropriate balance between promoting road safety and facilitating cyclists.

Environment and Conservation Fund

87. The Panel continued to monitor the use of the Environment and Conservation Fund ("ECF") and received an update on its operation and monitoring arrangements in May 2014.

88. Some members were concerned about the financial status of the non-profit-making organizations applying for ECF grants. To avoid abuse of ECF funding, they opined that the Administration should require all funding applicants to submit their financial reports or statements of accounts of the preceding year when apply for ECF grants and provide records of the income and expenses of their funded projects upon the completion of the projects. For the sake of transparency, such documents should also be made available on ECF's website for public viewing.

89. Some other members also sought elaboration on the monitoring work of the ECF Secretariat in examining the progress of different approved projects. The Administration explained that when making funding applications, all project proponents were required to set out targets and work plans of their projects for consideration of the ECF Committee or the vetting subcommittees. Once the proposed projects or activities were approved, the ECF Committee, the vetting subcommittees and the ECF Secretariat might randomly carry out visits or surprise checks to examine the progress of the projects to ensure that they were run in a satisfactory manner. To further ensure the proper use of public funds, the Administration planned to recruit certified public accountants to carry out audit checks on approved projects.

90. Members generally agreed that there was a need to step up the monitoring of ECF and enhance the transparency of the vetting mechanism in order to safeguard the proper use of public funds. The Administration was urged to draw up a "blacklist" of organizations which had breached ECF funding

rules for reference of the ECF Committee and the vetting subcommittees such that they might, where appropriate, refuse applications from those "blacklisted" organizations. Also, the Administration should carefully examine the audited statements of accounts provided by project proponents before the approved amount was disbursed so as to ensure that only the items on the approved budget would be reimbursed.

91. There was also the suggestion that the Administration should proactively designate topical themes for ECF each year to enable more focused efforts to be put in promoting particular environmental matters and to attract non-profit-making organizations to apply for funding to organize theme-related projects, thus facilitating the Administration to promote the themes throughout the territory.

92. Some members expressed concern about the composition of the ECF Committee and the three vetting subcommittees. To uphold the integrity of the operation of ECF, these members opined that the composition of the ECF Committee and the vetting subcommittees should comprise members from different political parties and background. There should also be a declaration of interests system and a redress mechanism to ensure that the assessment of funding applications were fair and just. To enhance the transparency of the application assessment process, consideration should be given to allowing the public to observe the meetings of the ECF Committee and the vetting subcommittees.

93. The Administration advised that the discussion and deliberations of the ECF Committee and the vetting subcommittees might involve sensitive information of individual funding applications, and hence the Administration considered it not appropriate to allow the public to observe their meetings. The Administration stressed that it attached great importance to the impartiality of the work of the ECF Committee and the vetting subcommittees. Advice had been sought from the Independent Commission Against Corruption on the appropriate procedures for vetting funding applications. Furthermore, a two-tier system for declaration of interests had been adopted for members of the ECF committee and the vetting subcommittees.

Subcommittee on Issues Relating to Air, Noise and Light Pollution

94. The Panel appointed the Subcommittee on Issues Relating to Air, Noise and Light Pollution ("the Subcommittee") in the last session to study issues relating to air, noise and light pollution for better protection of public health. The Subcommittee had held 10 meetings to discuss various relevant issues, including the impacts of air, noise and light pollution on public health and the associated medical costs; air pollution control and the associated public expenditure; the cost-benefit analysis of the measures to improve air quality; air

quality assessments under the EIA mechanism; noise pollution control and the associated public expenditure; and light pollution control and the associated public expenditure. The Subcommittee had concluded its work and submitted its Report to the Panel in February 2014.

95. The Administration will respond to the Subcommittee's Report at the Panel meeting in July 2014.

Other issues

96. Other issues deliberated by the Panel included the progress of the improvement works and associated measures undertaken by the Administration in response to the incident of leachate leakage from the NENT Landfill in July 2013, the feedback from the public consultation on Hong Kong's climate change strategy and action agenda as well as the Government's response and actions in taking forward the strategy and action agenda, the progress of the Administration's preparatory work to strengthen the emission control of petrol and liquefied petroleum gas vehicles, and the impact of construction works on important species, marine ecology and the fisheries industry. The Panel also held a meeting to receive public views on the Document for Engaging Stakeholders and the Public issued by the Task Force on External Lighting. The Panel has scheduled to discuss the District Cooling System at the Kai Tak Development and the collaboration with Guangdong in improving air quality in the Pearl River Delta region at its meeting on 23 July 2014.

97. The Delegation of the Panel which visited the Republic of Korea from 1 to 5 April 2013 to study the experience on waste management submitted its report to the Panel in November 2013. The Panel Chairman, on behalf of the Panel, moved a motion to take note of the Report at the LegCo meeting on 18 December 2013.

98. During the session, the Panel was consulted on the following legislative and staffing proposals and works projects –

- (a) the proposed amendments to the Schedules to the Hazardous Chemicals Control Ordinance (Cap. 595) with a view to giving effect to the amendments of the Stockholm Convention on Persistent Organic Pollutants ("the Stockholm Convention") to list 10 new chemicals in the elimination and restriction lists of the Stockholm Convention and reducing the potential risks posed by hazardous chemicals;
- (b) the proposal to set up a new Waste Reduction and Recycling Division in EPD through redeployment of existing manpower and creation of supernumerary posts, including an Assistant Director

of Environmental Protection post, for three years from 2014-2015 to 2016-2017;

- (c) the Waste Disposal (Amendment) Ordinance 2013 (Commencement) Notice, which sought to bring the Waste Disposal (Amendment) Ordinance 2013 into operation;
- (d) the proposal to upgrade Project 810TH to Category A at an estimated cost of \$623.3 million in MOD prices for retrofitting of noise barriers on the section of Tuen Mun Road between Rose Dale Garden and Lakeshore Building; and
- (e) three sewerage projects, namely, 160DS – Tuen Mun sewerage, stage 1, 346DS – Upgrading of Tuen Mun sewerage, phase 1 and 388DS – Shek Wu Hui sewage treatment works – further expansion phase 1A.

Meetings and local visits

99. From October 2013 to the end of June 2014, the Panel held a total of 14 meetings, including approximately 15 hours of meeting to receive views from 198 deputations/individuals on subjects of concern.

100. On 19 December 2013, the Panel paid a visit to the Sha Tin Refuse Transfer Station to view the waste sorting operation under the Waste Composition Survey. Waste Composition Surveys are conducted by EPD every year at various waste facilities to obtain field data for estimating the composition of waste disposed of. The Panel also paid a visit to the Chemical Waste Treatment Centre ("CWTC") in Tsing Yi on 25 April 2014 to understand its operation and treatment processes. Members visited the clinical waste and chemical waste reception centre and the central control room, and observed two waste treatment processes, namely incineration and mercury waste treatment.

Legislative Council

Panel on Environmental Affairs

Terms of Reference

1. To monitor and examine Government policies and issues of public concern relating to environmental matters (including those on energy), conservation and sustainable development.
2. To provide a forum for the exchange and dissemination of views on the above policy matters.
3. To receive briefings and to formulate views on any major legislative or financial proposals in respect of the above policy areas prior to their formal introduction to the Council or Finance Committee.
4. To monitor and examine, to the extent it considers necessary, the above policy matters referred to it by a member of the Panel or by the House Committee.
5. To make reports to the Council or to the House Committee as required by the Rules of Procedure.

**Legislative Council
Panel on Environmental Affairs**

Membership list for 2013-2014 session

Chairman Hon Cyd HO Sau-lan, JP

Deputy Chairman Hon CHAN Hak-kan, JP

Members

Hon LEE Cheuk-yan
Hon James TO Kun-sun
Hon Vincent FANG Kang, SBS, JP
Hon WONG Ting-kwong, SBS, JP
Hon CHAN Kin-por, BBS, JP
Hon Albert CHAN Wai-yip
Hon Claudia MO
Hon Steven HO Chun-yin
Hon Frankie YICK Chi-ming
Hon WU Chi-wai, MH
Hon Gary FAN Kwok-wai
Hon Charles Peter MOK, JP
Hon CHAN Han-pan, JP
Dr Hon Kenneth CHAN Ka-lok
Hon Kenneth LEUNG
Hon Dennis KWOK
Dr Hon Helena WONG Pik-wan
Dr Hon Elizabeth QUAT, JP
Ir Dr Hon LO Wai-kwok, BBS, MH, JP
Hon Christopher CHUNG Shu-kun, BBS, MH, JP
Hon Tony TSE Wai-chuen, BBS

(Total : 23 Members)

Clerk Ms Miranda HON

Legal Adviser Miss Evelyn LEE