

LCQ2: Disposal of municipal solid waste

Following is a question by the Hon Chan Yuet-ming and a reply by the Secretary for the Environment and Ecology, Mr Tse Chin-wan, in the Legislative Council today (July 13):

Question:

In the Waste Blueprint for Hong Kong 2035 (the Blueprint) announced early last year, the Government set a long-term goal of developing adequate waste-to-energy facilities, so as to move away from the reliance on landfills for disposal of municipal solid waste (MSW) and achieve "Zero Landfill" in around 2035. However, Hong Kong currently disposes of an average daily total of 11 000 tonnes of MSW through two existing landfills, whereas the Integrated Waste Management Facilities (incineration facilities) Phase 1 and Phase 2 under the Blueprint, which will commence operation in 2025 and the early 2030s respectively, will only be able to dispose of a daily total of around 7 000 tonnes of MSW. Therefore, the Government currently still needs to identify sites for the construction of Phase 3 of the incineration facilities, and to extend these landfills during the transitional period. In this connection, will the Government inform this Council:

(1) as Phase 3 of the incineration facilities is currently still at the site search stage, how the Government ensures that the target of "Zero Landfill" can be achieved in 2035; whether it will take new measures and allocate additional resources to advance the completion of Phase 1 and Phase 2 of the incineration facilities; if so, of the details; if not, the reasons for that;

(2) whether it has reserved expansion space for Phase 1 and Phase 2 of the incineration facilities for raising their waste disposal capacity; if so, of the details; if not, the reasons for that; and

(3) as it is learnt that residents in Luohu District and Nanshan District of Shenzhen have incessant grievances towards the North East New Territories Landfill and the West New Territories Landfill, whether the Government has plans to review afresh the operation of these two landfills, such as deferring their extension plans or examining when they can be closed; if so, of the details; if not, the reasons for that?

Reply:

President,

Last year, the Government announced the Waste Blueprint for Hong Kong 2035 and the Hong Kong's Climate Action Plan 2050, setting out to move away from the reliance on landfills for municipal solid waste (MSW) disposal by around 2035 and to achieve carbon neutrality in waste management before 2050.

The Government's strategy has two main directions. The first is to proactively mobilise the entire community to practise waste reduction and resources circulation so as to reduce waste at source. The second is to move away from the reliance on landfills for MSW disposal through construction of infrastructures and expedite the development of sufficient waste-to-energy (WtE) facilities.

My reply to the question raised by the Hon Chan Yuet-ming is as follows:

(1) & (2) The Government is building the first Integrated Waste Management Facility (IWMF), namely I·PARK1, on an artificial island of about 16 hectares in the open sea off Shek Kwu Chau, with a treatment capacity of 3 000 tonnes of MSW per day. The relevant reclamation works and construction works for seawalls and breakwaters have been substantially completed. The contractor is carrying out the foundation works on the artificial island, and also prefabricating the boiler steel structure and its electrical and mechanical parts at the prefabrication yard in Zhuhai. The prefabricated items will then be shipped to the artificial island for assembly while the remaining works of the project will be continued. I·PARK1 is expected to commission in 2025.

The Government announced in January this year that the Tsang Tsui middle ash lagoon in Tuen Mun was identified to be the site for developing the second IWMF, i.e. the Integrated Waste Management Facilities Phase 2 to be named as I·PARK2, with a daily treatment capacity of 4 000 tonnes of MSW. When planning for the development of I·PARK1, the Government considered both Tsang Tsui in Tuen Mun and the artificial island off Shek Kwu Chau were suitable sites for developing WtE facilities. Comparing with other locations in Hong Kong, the conditions of the Tsang Tsui site in Tuen Mun are relatively mature for developing WtE facilities. This will be conducive to the expeditious commencement and completion of the construction works for I·PARK2. It is expected that I·PARK2 can be put into services no later than early 2030s to further reduce the use of landfill space for MSW disposal. The Environmental Protection Department (EPD) is now arranging for the engagement of consultants to carry out the detailed Environmental Impact Assessment study and the technical studies for I·PARK2. The consultancy studies are expected to commence in December this year.

Our goal is to achieve "Zero Landfill" by around 2035 through various waste reduction and recycling measures, coupling with adequate WtE facilities, so as to cope with the long-term needs for MSW management of Hong Kong. The amount of waste generation will increase with economic and trade and population growth. Currently we expect that, in addition to I·PARK1 and I·PARK2, it is most likely that I·PARK3 (i.e. Integrated Waste Management Facilities Phase 3) will be required in order to achieve the goal of "Zero Landfill". Therefore, the EPD is commencing a territory-wide site search study in parallel to identify other potential sites suitable for developing more similar WtE facilities. For timely completion and operation of adequate WtE facilities required for Hong Kong, we are exploring the use of Public Private Partnership approach to pursue some of these facilities, to ensure speedy construction of WtE facilities through the most efficient and cost-effective means.

Regarding the suggestion on increasing the design treatment capacity of I·PARK1, the area of the artificial island off Shek Kwu Chau is only sufficient for building an IWMF with a daily treatment capacity of 3 000 tonnes and the current design has already occupied the whole artificial island. Therefore, it is technically infeasible to increase the treatment capacity of I·PARK1.

As for I·PARK2, where Tsang Tsui in Tuen Mun overlooking Deep Bay, both sides of the site have been developed with other existing facilities. Given the geographical constraints together with the surrounding facilities required by I·PARK2, the site area available for development is limited, which is estimated to be merely enough for building the proposed main facility with a daily treatment capacity of 4 000 tonnes and its ancillary facilities and there is virtually no space for further expansion.

(3) Nowadays, Hong Kong needs to handle about 11 000 tonnes of MSW and 4 000 tonnes of construction waste every day. Currently, the North East New Territories (NENT) Landfill and the West New Territories (WENT) Landfill are responsible for receiving MSW. The Government is actively promoting the development of WtE facilities according to the strategies set out in the Waste Blueprint for Hong Kong 2035 with a view to achieving the goal of "Zero Landfill" by around 2035. However, before the full commissioning of adequate WtE facilities, Hong Kong still needs to have landfills for disposal of MSW. Therefore, it is actually necessary to extend the landfills to a limited extent during the transitional period, and to increase the capacity of the existing landfills to cope with the disposal needs in the short to medium term. With the anticipated commissioning of I·PARK1 in 2025, together with the landfill operation arrangements and associated traffic arrangements, it is expected that the total amount of MSW to be handled by the two landfills in the New Territories can be reduced by about 3 000 tonnes per day. Upon the commissioning of I·PARK2, the NENT Landfill will completely cease receiving MSW. We expect that the development of the Northern Metropolis may generate a large amount of construction waste, which will not decay and be odourless. If construction waste will be disposed of at the NENT Landfill during the development of the Northern Metropolis, it can reduce the nuisance to residents caused by long distance transportation, while the odour and hygiene problems arising from landfilling of MSW will no longer be existed. Around 2035, when Hong Kong has sufficient waste incineration capacity, the WENT Landfill will also cease receiving MSW.

Regionally, the EPD has all along been actively maintaining close communication and exchanging views with the Shenzhen Municipal Government on the operational management of the NENT Landfill and WENT Landfill and how their extensions operate and reduce nuisance. Shenzhen and Hong Kong sides will continue to maintain close liaison regarding issues associated with the two landfills.