

EPD to develop new waste-to-energy facilities to gradually phase out landfills

The Government set out in the Waste Blueprint for Hong Kong 2035 and Hong Kong's Climate Action Plan 2050 the goals of "Zero Landfill" and carbon neutrality. To achieve the goals, Hong Kong needs sufficient waste-to-energy (WtE) facilities to handle municipal solid waste (MSW), together with promoting waste reduction and clean recycling. The Environmental Protection Department (EPD) announced today (January 25) the commencement of the planning studies on developing new WtE facilities.

The two existing landfills in Hong Kong receive an average of 11 000 tonnes of MSW in total daily. Regarding the greenhouse gas (GHG) emissions associated with waste management, the decomposition of MSW in landfills is the major source. Waste management has therefore become the third major source of GHG emissions locally in recent years. To move away from the reliance on landfills for MSW disposal by around 2035 and to achieve carbon neutrality in waste management before 2050, the Government is not only committed to promoting waste reduction at source and various means of recycling, but also developing sufficient WtE facilities with a view to transforming unavoidable and non-recyclable MSW into resources comprehensively.

A spokesman for the EPD said, "The Integrated Waste Management Facilities Phase 1, I-PARK1, which is now being built near Shek Kwu Chau, will be the first WtE facility that adopts advanced incineration technology to treat MSW in Hong Kong. An air pollution control system that is more stringent than the corresponding European Union standard will be installed in I-PARK1 to ensure that air emissions will not cause adverse impacts to the surrounding environment. I-PARK1 is targeted for commissioning in 2025 with a treatment capacity of 3 000 tonnes of MSW daily. To keep abreast of the times, Hong Kong needs to build more WtE facilities with a view to transforming all unavoidable and non-recyclable waste into resources as well as boosting the portion of electricity generation from WtE sources."

When planning for the development of I-PARK1, the EPD carried out an in-depth study on the middle ash lagoon at Tsang Tsui in Tuen Mun as one of the potential sites under consideration. The EPD will commence in the first half of this year a fresh round of both the Environmental Impact Assessment (EIA) and the technical studies for the Tsang Tsui site, with a treatment capacity preliminarily set at around 4 000 tonnes of MSW per day. Also, the department plans to commence a comprehensive territory-wide site search study in parallel to identify other potential sites suitable for developing similar WtE facilities across the territory, followed by the associated EIA and technical studies, with due consideration of geographical location, available land, environmental impacts, waste transportation arrangements, the overall distribution of waste management infrastructure, and more. The modern WtE

facilities will adopt advanced technology and integrate with public amenities or green tourism concepts to maximise synergy through co-locating public facilities that can widely benefit members of the public.

The spokesman said that landfills are still necessary to treat MSW before adequate WtE facilities have been fully commissioned. During this transitional period, the two landfills in the New Territories will be extended to a limited extent. Following an open tender process, Veolia Environmental Services Hong Kong Limited has won the contract to design, build and operate the North East New Territories Landfill extension. The corresponding construction works will commence early this year and more stringent environmental protection measures will be implemented. In addition to real-time monitoring and reporting of a wide range of environmental parameters, a dedicated website will be set up to report the environmental monitoring and auditing data and results to the public. For the West New Territories (WENT) Landfill, the landfill extension area has been significantly reduced by half from around 200 hectares to only around 100 hectares from the original design. The open tender exercise for the WENT extension project will be conducted this year.

The spokesman added that developing MSW treatment infrastructure to transform MSW into resources through waste incineration for generation of electricity forms an integral part of the overall waste management strategies of many advanced cities (the relevant information is tabulated in the Annex). Modern WtE facilities have already been proved as safe, efficient and decarbonising while converting waste into electricity. By complementing the blueprints for environmental protection in waste reduction and decarbonisation, the WtE facilities would support Hong Kong on its way to achieving carbon neutrality before 2050.