

**For discussion on
24 June 2024**

**LEGISLATIVE COUNCIL
PANEL ON ENVIRONMENTAL AFFAIRS**

**Operation and Management of North East New Territories Landfill
and
Development of Modern Waste-to-Energy Incinerators**

PURPOSE

This paper reports to Members on the latest progress of the Environmental Protection Department (EPD) in operation and management of the North East New Territories (NENT) Landfill and the development of the network of modern waste-to-energy (WtE) incinerators.

BACKGROUND

2. At present, an average of about 11 100 tonnes of municipal solid waste (MSW)¹ are disposed of at landfills in Hong Kong per day. Currently, there are three strategic landfills in operation, namely, the South East New Territories (SENT) Landfill in Tseung Kwan O, the NENT Landfill in Ta Kwu Ling and the West New Territories (WENT) Landfill in Tuen Mun. Among these three landfills, only the NENT Landfill and

¹ The figure is based on the Waste Statistics for 2022. In addition, about 4 100 tonnes of construction waste are transported to landfills for disposal per day.

WENT Landfill receive MSW² of around 5 200 and 5 900 tonnes respectively per day.

3. In the Waste Blueprint for Hong Kong 2035 (the Blueprint), the Government sets out the vision to move away from the reliance on landfills for direct disposal of MSW by around 2035. The Government's strategy has two main directions. The first is to mobilise the entire community to practise waste reduction and waste separation for recycling in the upstream to reduce the overall waste disposal amount. The second is to proactively drive the development of downstream WtE facilities for sustainable disposal of the remaining MSW. According to the strategies set out in the Blueprint, should there be sufficient WtE and waste-to-resources facilities in place by around 2035, we will no longer need to rely on landfills for direct disposal of MSW. By then, only waste that is non-combustible and cannot be recycled or reused, such as construction waste, will be disposed of at the landfills.

4. The EPD is pressing ahead with the development of a network of advanced and highly efficient modern WtE facilities, including modern WtE incineration facilities and food waste treatment facilities, with a view to moving away from the reliance on landfill for direct disposal of MSW and transforming waste into useful energy resources. However, prior to development of sufficient WtE facilities, Hong Kong still needs the NENT Landfill and WENT Landfill. At present, the remaining capacity of these two landfills is less than 20% and based on the current daily waste intake, it is projected that both landfills will be exhausted in 2026. Therefore, Hong Kong still needs to extend both landfills as appropriate to cope with the ultimate waste disposal needs of the territory in the short to medium term. To this end, we have awarded the works contracts for the NENT Landfill Extension and the WENT Landfill Extension in January 2022 and August 2023 respectively. The capital works and detailed design concerned have already commenced progressively to ensure timely commissioning of the landfill extensions.

² With effect from 6 January 2016, the SENT Landfill and its extension are solely for reception of construction waste for disposal. The NENT Landfill and WENT Landfill currently can receive MSW and construction waste.

5. During this transitional period, while meeting Hong Kong's essential needs for waste management, the EPD has endeavoured to step up its efforts in managing the landfills and minimising the impact of landfill operation on neighbouring residents as far as possible, in response to the concerns of the residents near Hong Kong-Shenzhen boundary on the NENT Landfill.

LATEST DEVELOPMENT OF THE NENT LANDFILL

6. The EPD has injected additional resources to introduce and progressively implement various enhancement measures for further improving the landfill operation since 2021. We completed the implementation of a number of improvement measures by end June 2022, including (i) stepping up the application of Posi-Shell covers to safeguard environmental hygiene and reduce odour emission; (ii) advancing the process of covering the landfill operational areas with clean soil cappings to reduce the original size of such areas by about 40% to 50% as far as practicable; (iii) shortening the time for waste reception at the landfill by one hour by advancing the closing time of waste reception from 7pm to 6pm; (iv) installing additional deodourisers, (v) covering the leachate storage lagoons; and (vi) enhancing the monitoring of odour emission, etc.

7. To expedite the environmental improvements to the NENT Landfill and minimise the visual and odour impacts arising from the landfill on nearby residents, the EPD has already advanced the final restoration and greening works of the NENT Landfill, originally scheduled for 2026 upon completion of its landfilling operation, to end-2021, with a view to minimising odour emission and improving the appearance of the landfill as soon as possible, thereby minimising the "Not In My Backyard" effect and the associated visual impact. In addition, the EPD finished the restoration and greening works for 80% of the operational areas where landfilling has been completed, in accordance to the schedule of end-2023. Details of the various improvement works completed or in progress are at **Enclosure 1**.

8. Looking ahead, we will implement the following improvement measures at the NENT Landfill progressively in 2024:

- (1) On restoration and greening works, in addition to restoring and greening of 80% of the operational areas (about 20 hectares) where landfilling was completed from end-2021 to end-2023, we will commence restoration and greening works for the remaining 20% of such areas and other suitable locations (about an additional 8 to 10 hectares) in 2024. As at May 2024, restoration and greening works for about 5 hectares of additional area have been completed;
- (2) To minimise the potential odour problem arising from livestock waste treatment at the NENT Landfill, the EPD has progressively taken forward pig waste treatment by anaerobic digestion technology since the commissioning of the Organic Resources Recovery Centre Phase 2 (O•PARK2) in March 2024, with a cumulative amount of about 1 200 tonnes of pig waste treated as at end May 2024. Currently, O•PARK2 treats about 25 tonnes of pig waste, or 60% of the total disposal quantity in Hong Kong per day. It is expected that landfill disposal of pig waste will be completely replaced by anaerobic digestion technology in July this year. During this transitional period, we have sprayed biological agents, as applied in landfill sites in the Mainland, in livestock waste pits during their operation. Waste odour is either absorbed or dissolved by the micro-organisms in the biological agents. We have also installed openable metal covers on livestock waste pits that are in operation. The metal covers will be opened only when disposal of livestock waste is required, for minimising the possibility of odour emission;
- (3) Drawing on the experience of the Mainland and other regions, we will introduce new mechanical technology and commenced a trial starting from end May of 2024, to cap part of the landfill operational areas with impermeable plastic liners upon completion of operation each day, with a view to evaluating the effectiveness of the new technology in improving the odour problem and the suitable areas and scale of its application at the landfill; and

- (4) We will expedite the connection of gas extraction facilities to the existing landfill gas (LFG) collection system and continue to enhance the overall extraction volume of LFG at the NENT Landfill, thereby strengthening odour control at the NENT Landfill.

9. Following the implementation of the various improvement measures, the levels of hydrogen sulphide, odour intensity and ammonia were found complying with the national standards during the joint air quality monitoring conducted by both governments of Hong Kong and Shenzhen at the locations along the Hong Kong-Shenzhen boundary in March 2023. Besides, data obtained from independent monitoring exercises carried out at the Liantang/Heung Yuen Wai areas and the nearby local villages by an independent professional body commissioned by the EPD revealed that the levels of hydrogen sulphide measured from 2023 to mid May 2024 in areas close to the Hong Kong boundary and villages near the landfill remained low and complied with the national standard. Moreover, the number of complaints concerning the NENT Landfill received by the EPD in 2023 decreased significantly by nearly 80% when compared with that in 2022.

DEVELOPING THE NETWORK OF WtE FACILITIES

10. On the other hand, we are working full steam on developing highly efficient modern WtE incinerators and food waste treatment facilities. Regarding food waste treatment, a total of 600 tonnes of food waste can be received and treated each day by the existing Organic Resources Recovery Centre Phase 1 (O • PARK1), Organic Resources Recovery Centre Phase 2 (O • PARK2) and the food waste/sewage sludge anaerobic co-digestion trial scheme at Tai Po Sewage Treatment Works and Sha Tin Sewage Treatment Works, which is sufficient to meet the current food waste treatment needs. We will closely monitor the food waste collection quantity and public participation in food waste recycling. Based on actual

circumstances, we will review the planning and development of food waste treatment facilities as well as the resources required from time to time³.

11. Regarding the development of modern WtE incinerators, with the Integrated Waste Management Facilities Phase 1 (I•PARK1) under construction and the proposed Integrated Waste Management Facilities Phase 2 (I•PARK2), Hong Kong's MSW incineration capacity will reach 9 000 tonnes per day. Upon commissioning of the proposed I•PARK2, the NENT Landfill will completely cease MSW reception and will be transformed to receive construction waste only, which does not decay and is odourless, thereby eliminating the odour problem arising from MSW reception. The Government will continue to exert efforts to promote waste reduction and recycling, aiming to achieve "Zero Landfill" in around 2035 and refraining from reliance on direct landfill disposal for MSW.

CONSTRUCTION PROGRESS OF I•PARK1

12. I•PARK 1 is the first modern WtE incinerator project in Hong Kong, currently under construction on an artificial island of about 12 hectares off Shek Kwu Chau, for handling around 3 000 tonnes of MSW per day. A photomontage of I•PARK1 upon completion is at **Enclosure 2**.

13. I•PARK1 is one of the few WtE incinerator projects built on reclaimed land. To tackle the mounting environmental challenges, the contractor prefabricated a total of 74 pieces (each weighing as heavy as 3 800 tonnes) of giant concrete seawall and breakwater structures in Dongguan and transported them by sea to the artificial island for assembly. The contractor also prefabricated the main electrical and mechanical equipment modules in Zhuhai using the Modular Integrated Construction approach, with 12 giant modules successfully delivered to the artificial island so far. Among them, there are six giant prefabricated incineration boiler modules each weighing approximately 6 000 tonnes, which are the largest of their kind in the world. As at May 2024, the reclamation works,

³ For the development plan of food waste treatment facilities, please refer to LC Paper No. CB(1)333/2023(05) on "Food Waste Collection and Organic Resources Recovery Centre Phase 2" submitted to the Legislative Council Panel on Environmental Affairs.

seawall and breakwater construction works for I•PARK1 were largely completed. The contractor is currently carrying out works on the artificial island related to the foundation, civil engineering, plants, chimneys, buildings and structural engineering, while the remaining works mainly include installations of building services and electrical and mechanical systems, as well as the plants and test runs of the facilities, etc. The EPD will continue to closely monitor the works progress of I•PARK1 with the target of commissioning in 2025.

14. Upon commissioning of I•PARK1, MSW will be shipped by container vessels from designated refuse transfer stations (such as West Kowloon Refuse Transfer Station) to I•PARK1. I•PARK1 can significantly reduce the waste volume by 90% after treatment and recover heat energy generated during the process for electricity generation. Upon full operation, I•PARK1 can generate electricity for its daily operation and export surplus electricity estimated at 480 million kilowatt-hours (kWh) each year to the power grid.

PLANNING OF PROPOSED I•PARK2

15. As for the proposed I•PARK2 at Tsang Tsui, Tuen Mun, the relevant investigation and design study has already commenced in January 2023 and various relevant statutory procedures (including those under the Environmental Impact Assessment Ordinance (Cap. 499) (EIAO) and the Foreshore and Sea-bed (Reclamations) Ordinance (Cap. 127)) are underway in parallel. The location plan and site plan of the proposed I•PARK2 are at **Enclosure 3** and **Enclosure 4** respectively.

16. In the past year, we worked with the expert team and major waste incineration enterprises to study various issues including increasing the design capacity of the proposed I•PARK2, compressing the construction progress and technical options. Relevant progress and achievements are detailed in the following paragraphs.

To study the increase of treatment capacity and the expedition of construction progress

17. When the Government announced its plan in January 2022 to develop the proposed I•PARK2 on the 18-hectare site of the middle ash lagoon in Tsang Tsui, Tuen Mun, the preliminary treatment capacity of the proposed I•PARK2 was set at around 4 000 tonnes of MSW per day given its geographical constraints and estimation based on the footprint of I•PARK1 site. With reference to major complex government infrastructure projects in the past, the proposed I•PARK2 was originally expected to be completed in early 2030s.

18. To optimise the utilisation of the 18-hectare site and promote the development of I•PARK2, we suggest taking a three-pronged approach: (1) to study streamlining procedures and synchronising various work; (2) drawing on the vast experience of major waste incineration enterprises, including in WtE incinerator development in the Mainland, to explore enhancing the treatment capacity; and (3) to explore introducing suitable financial incentives to be incorporated into the contract terms to encourage contractor to expedite construction progress.

19. Since the resumption of normal travel in early 2023, we have had multiple exchanges with major overseas and Mainland waste incineration enterprises on how to accelerate the development of the proposed I•PARK2 and increase its treatment capacity:

- (1) **Market Sounding Exercise (MSE):** In April 2023, we conducted a briefing for market sounding, arranged a visit to the project site at Tsang Tsui, Tuen Mun and collected suggestions from over 20 overseas and Mainland enterprises with experience in developing and operating large-scale waste incinerators on various aspects of the proposed I•PARK2 project, such as construction mode, efficiency and speed, incineration technology and construction of ancillary facilities, etc. Among those enterprises, nine were from Beijing, Shanghai and the Mainland cities of the Greater Bay Area (including Shenzhen, Jiangmen, Zhuhai, Huizhou and Foshan),

and over 10 relevant local and overseas enterprises (e.g. from Japan, France and Singapore); and

- (2) **Inter-governmental exchanges between Hong Kong and Shenzhen:** Shenzhen is one of the first Mainland cities to achieve treating domestic waste solely by incineration. Therefore, we have been keeping close contact with the Shenzhen Municipal Government, conducted in-depth discussions on relevant technologies and exchanged views on expediting the development of the proposed I•PARK2 in Hong Kong with reference to the experience of Shenzhen. The Environment and Ecology Bureau and the EPD have so far made three visits to WtE incinerators in Shenzhen to leverage on Shenzhen's fruitful experience.

20. Through the above MSE and exchanges at the planning stage for the proposed I•PARK2 project, we could have in-depth interactions and discussions on a non-committal basis with the contractors and the operators which were possessed practical experience. This did not only facilitate us to ensure that the works details and tender documents would more aptly reflect the actual market situation, but also gave opportunities to the enterprises which might be interested in the development of the proposed I•PARK2 in the future to better understand the project, which would be conducive to attract more enterprises to submit compliant and competitive tenders.

21. Some large-scale Mainland waste incineration enterprises participating in the MSE pointed out that there were more workers specialised in WtE incinerator construction and specialised equipment in the Mainland compared to Hong Kong. Moreover, it was considered that the site for the proposed I•PARK2 was relatively small, inconveniently located without sufficient infrastructure, but flanked by other existing facilities on both sides. Insufficient works area will increase the construction difficulty and time required.

22. Notwithstanding these constraints and difficulties, we concluded from the in-depth studies and detailed discussions with the trades and contractors that the estimated treatment capacity of the proposed I•PARK2

could be increased by 50% from 4 000 to 6 000 tonnes per day upon effective utilisation of the proposed I•PARK2 site and the application of the state-of-the-art technology.

23. Regarding the construction time, having consolidated the opinions from the expert team and large-scale Mainland waste incineration enterprises in relation to the actual setting of the proposed I•PARK2 site, the construction period (discounting the circumstances affected by inclement weather) could be approximately shortened from the original estimate of 72 months to 54 months, 25% less or 18 months ahead of the original estimated schedule. With the construction schedule expedited and various advance work synchronised, they expected that the proposed I•PARK2 could be completed about 2 years earlier than the original estimated schedule.

24. We are exploring whether financial incentives can be incorporated into the works contract to encourage the contractor to expedite works progress.

Proposed core technologies and key design features of I•PARK2

(1) Emission standards

25. The findings from the investigation and design study suggested that adopting advanced incineration technology in the proposed I•PARK2 could achieve thorough combustion of waste at a high temperature above 850°C with sufficient air supply and high turbulence flow. The flue gas stays at this high temperature for at least two seconds to ensure effective decomposition of organic compounds including dioxins. The more advanced and stringent standards as recognised internationally will be benchmarked for setting the flue gas emission standard to be adopted at I•PARK2, including the National Standard ⁴ and European Union (EU) ⁵ standards. Taking dioxins as an example, the study suggests that the emission parameter of 0.04 ng I-TEQ/Nm³ with reference to the EU standards to be adopted in the proposed I•PARK2. Moreover, the study

⁴ National Standard (GB 18485-2014).

⁵ The air pollutant emission standards for waste incineration issued by the EU in 2019 in accordance with Directive 2010/75/EU on industrial emissions.

suggested that advanced air pollution control systems will be adopted in the proposed I•PARK2 and flue gas emissions will be monitored during its operation to ensure compliance with the stringent emission standards. We suggest to evaluate air quality impact of the project on the surrounding areas in the Environmental Impact Assessment report to ensure compliance with the Air Quality Objectives and the relevant standards or criteria.

(2) Architectural Design and Community Facilities

26. As a way to reduce project cost, the study suggested that the principle of “fitness-for-purpose and no frills” will be adopted in the design of the proposed I•PARK2, so as to adopt the most cost-effectiveness approach for project implementation. We would, by specifying the requirement in the contract, suggest contractors submit a better architectural design option with higher cost-effectiveness in accordance with the functional requirements and reference design set out in the tender document at **Enclosure 5** without compromising functionality, visual and landscape elements of the facilities.

27. Drawing on the experience of T•PARK, the study suggested that community facilities combining environmental education, leisure and recreation elements would be provided at the proposed I•PARK2, achieving the vision of “single site, multiple use” for synergy. The spa pools at T•PARK, heated by heat energy recovered from sludge incineration, are well received by the public. In addition to providing an environmental education centre, we are also exploring the possibility for the proposed I•PARK2 to include recreational venues different from those in T•PARK to offer the public novel recreational experience. We will listen to the views of stakeholders on the above community facilities through different channels and incorporate community facilities that will meet the needs of the public in the design of the proposed I•PARK2 to allow members of the public to benefit. It is suggested that “no frills” design principle to be adopted in these community facilities for cost-effectiveness.

(3) Treatment of bottom ash and fly ash

28. During the incineration process, the inert waste fraction will remain at the bottom of the moving combustion grate due to incombustibility and be discharged as bottom ash at a size of only 10% of the original volume. The bottom ash contains mainly inert materials of minimal environmental impact and relatively low recycling value, such as glass and ceramic, and also a small amount of ferrous and non-ferrous metals of higher recycling value. We will consider setting up bottom ash treatment facilities at the proposed I•PARK2 to treat bottom ash generated from I•PARK1 and the proposed I•PARK2. As the proposed I•PARK2 has a maximum treatment capacity of 6 000 tonnes per day, we preliminarily estimated that about 1 200 tonnes of bottom ash will be generated each day. After treatment, the bottom ash can be used for manufacturing low-carbon green construction materials such as low-carbon cement, non-structural concrete aggregates and road base course aggregates, thereby minimising the amount of bottom ash disposed of at landfills. We would suggest inviting contractors through the tender documents to put forward cost-effective recycling options that also cater for the market needs of low-carbon green construction materials.

29. In addition to bottom ash, it is estimated that the proposed I•PARK2 will generate some 200 tonnes of fly ash each day when it is in full operation. Fly ash generally has a higher concentration of heavy metals requiring separate treatment. According to the experience in the Mainland and other regions, the existing technology for recovering fly ash is immature with a high cost. Therefore, we would suggest adopting the prevailing fly ash treatment method by using cement or chemicals for solidification or stabilisation prior to landfill disposal to minimise environmental pollution⁶. The Government will keep in view the development of fly ash treatment technology and consider recovering fly ash when the technology becomes mature and cost-effective.

⁶ For landfill disposal, fly ash must undergo treatment and comply with the incineration residue pollution control limits and the leachate parameters set out for landfills in Hong Kong.

(4) Incineration technology and other proposed operational arrangements

30. At present, moving grate incineration is widely adopted in the Mainland and around the world for most large-scale WtE incinerators under operation and construction. As the mainstream thermal technology for handling mixed unrecyclable MSW, moving grate incineration can achieve a larger waste treatment capacity with a smaller footprint and significantly reduce the waste volume by about 90% upon treatment, capable of meeting the long-term and large-scale waste disposal demand, with features of high efficiency, reliability, maturity and cost-effectiveness. Moving grate incineration is adopted in the I•PARK1 under construction and the study suggested the same technology could be adopted in the proposed I•PARK2.

31. Heat energy recovered from the waste treatment process will be used to generate electricity for on-site use, with surplus electricity to be exported to the power grid. This can help reduce electricity generation by fossil fuel and carbon emission. According to the experience from I•PARK1, the proposed I•PARK2 is expected to export up to about 960 million kWh of surplus electricity to the power grid annually.

32. It is anticipated that the proposed I•PARK2 will mainly receive waste compacted and sealed by the refuse transfer stations and shipped by dedicated container vessels, while receiving just some waste from nearby districts on land transported by garbage or container trucks. For more effective handling of waste by sea carriage, the project would include dedicated berths and waste containers could be more easily lifted to the plants for subsequent treatment.

33. We propose to adopt the New Engineering Contract (NEC) form for preparing the contract documents of the proposed I•PARK2. The NEC provides a mechanism for the contracting parties to share the difference between the actual construction cost and the target cost. This can incentivise the client's representative and the contractor to work in collaboration and formulate the most cost-effective construction method for the smooth implementation of the project and avoidance of budget overrun. All in all, the collaborative partnering principle under the NEC facilitates the project team to work together proactively for timely

resolution of construction issues and difficulties, thereby reducing the risk of slippage or budget overrun in the works project.

The Next Step for the proposed I•PARK2

34. The construction and operation of the proposed I•PARK2 is a designated project as specified under Schedule 2 of the EIAO. To meet with the requirements of the EIAO, we are preparing the environmental impact assessment report and expect to submit it for approval in the third quarter of 2024.

35. As the construction of dedicated berthing facilities for container vessels at the proposed I•PARK2 involves marine works, we will proceed with the legal procedures pursuant to the Foreshore and Sea-bed (Reclamations) Ordinance (Cap. 127), including gazettal of the marine works.

36. We will consult the relevant stakeholders in due course, including the Tuen Mun District Council, the relevant rural committees and the Advisory Council on the Environment for the proposed works of I•PARK2. Meanwhile, we are preparing a series of publicity materials for I•PARKs, such as publicity posters, video clips and social media posts, to enhance public understanding and recognition of modern WtE incinerators.

PLANNING OF WASTE INCINERATION FACILITIES

37. Apart from constructing I•PARK1 and the proposed I•PARK2 project, we will also make timely preparations and planning to address MSW disposal needs in Hong Kong. We will explore a suitable site in the Northern Metropolis for building an advanced WtE facility to provide the essential waste disposal services for the population thereof in the long run.

ADVICE SOUGHT

38. Members are welcome to give their views on the EPD's operation and management of landfills and the development of the network of modern WtE incinerators.

**Environment and Ecology Bureau
Environmental Protection Department
June 2024**

Table 1: Existing odour control improvement measures for NENT Landfill

	Improvement Measures	Implementation
1	Applying Posi-Shell covers	Since early 2022, the EPD has instructed the landfill contractor to apply an addition of 5 tonnes of Posi-Shell covers on top of soil cappings required under the original contract every day to safeguard environmental hygiene and further reduce odour emission. Posi-Shell is a patented blend of clay, polyester and cement that is specifically used to cover landfills and soil surfaces. Overseas experience shows that Posi-Shell covers are effective in controlling odour emission.
2	Reducing the operational areas of the landfill	The EPD now requires the landfill contractor to advance the process of covering the operational areas with clean soil cappings upon completion of daily waste reception to noon every day, so that the scope of the operational areas for MSW landfilling can be reduced earlier and trimmed down by about 40% to 50% of the original size as far as practicable.
3	Shortening the operation hours for waste reception at the landfill	Since December 2021, the time for waste reception at the landfill has been shortened by 1 hour, ceasing waste reception earlier from 6 p.m. instead of 7 p.m., to ensure early commencement and completion of the subsequent odour control processes of applying soil cappings and Posi-Shell covers.

	Improvement Measures	Implementation
4	Installing additional deodourisers	To strengthen control over potential odour emission during waste transportation and tipping, over 16 additional deodourisers have been installed at the operational areas and potential odour sources at the NENT Landfill, each with an effective control range of around 350 m ² .
5	Covering leachate storage lagoons	To reduce odour emission from the three leachate storage lagoons of the landfill, covers have been installed at these lagoons.
6	Enhancing odour emission monitoring	To alleviate the concerns of nearby residents on the odour and gas emissions from the landfill, the EPD has not only deployed on-site supervisory staff to conduct routine inspections, but also commissioned a professional body (the Hong Kong Productivity Council) to carry out independent monitoring on two parameters, i.e. hydrogen sulphide and odour intensity, at the Liantang/Heung Yuen Wai area and also the nearby local villages since end-2021, with a view to enhancing public acceptance of the monitoring data. Real-time monitoring of the concentrations of hydrogen sulphide along the boundaries of the landfill has also been carried out, with a dedicated website [#] set up to publicise the monitoring data.
7	Mitigating the odour problem arising from livestock waste treatment	We have installed openable metal covers and sprayed biological agents over the livestock waste pits to minimise the possibility of odour emission. Since the commissioning

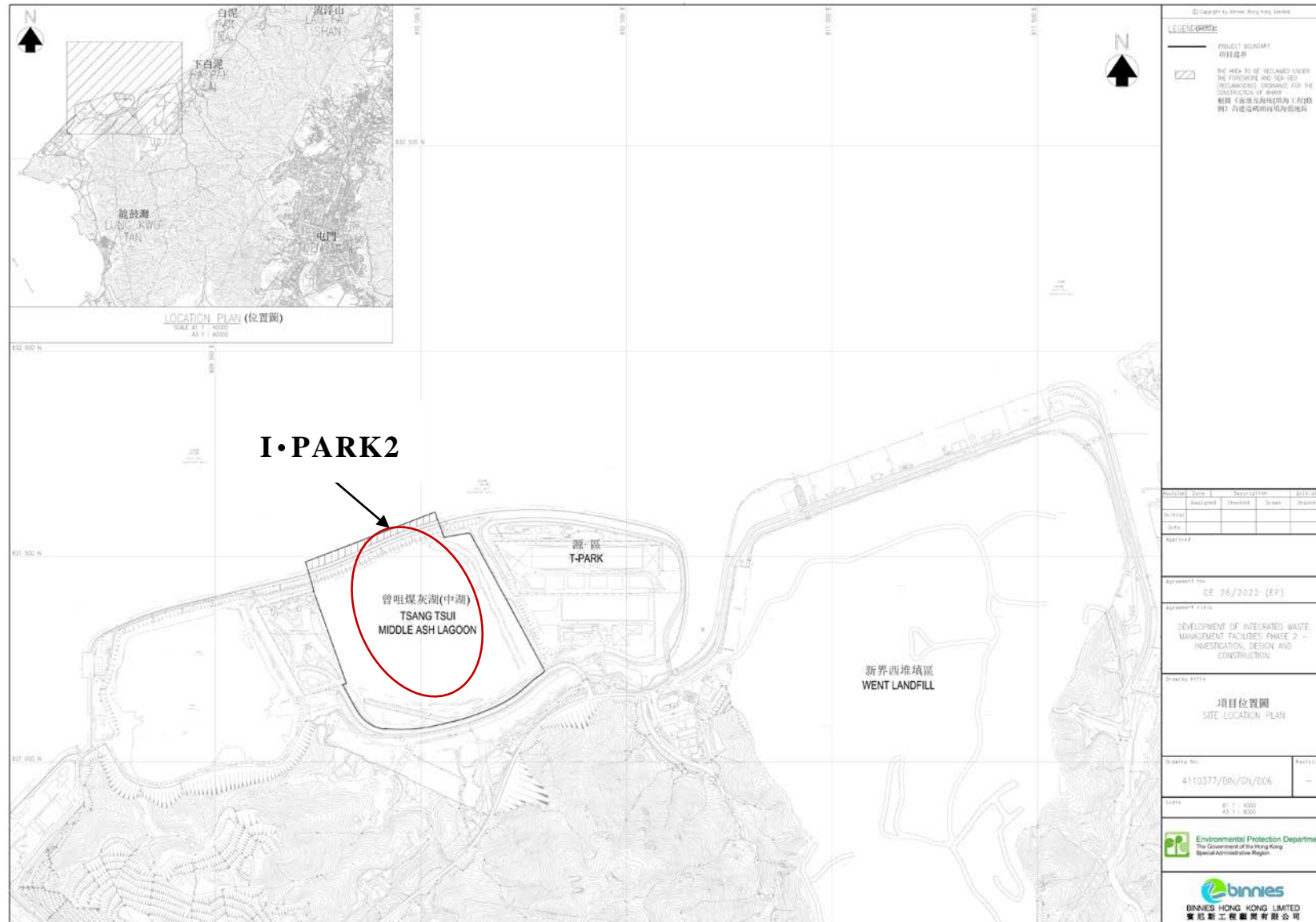
	Improvement Measures	Implementation
		of O•PARK2, the EPD has been progressively applying the anaerobic digestion technology for pig waste treatment, with the long-term goal of adopting this technology for livestock waste treatment.
8	Capping the landfill operational areas with impermeable plastic liners	Drawing on the experience of the Mainland and other regions, we will introduce new mechanical technology and commenced a trial since end May of 2024, to cap part of the landfill areas with impermeable plastic liners upon completion of operation each day, with a view to evaluating the effectiveness of the new technology in improving the odour problem and the suitable areas and scale of its application at the landfill.

#Note: Real time data is published on <http://airsensor.pedia.epd.gov.hk>

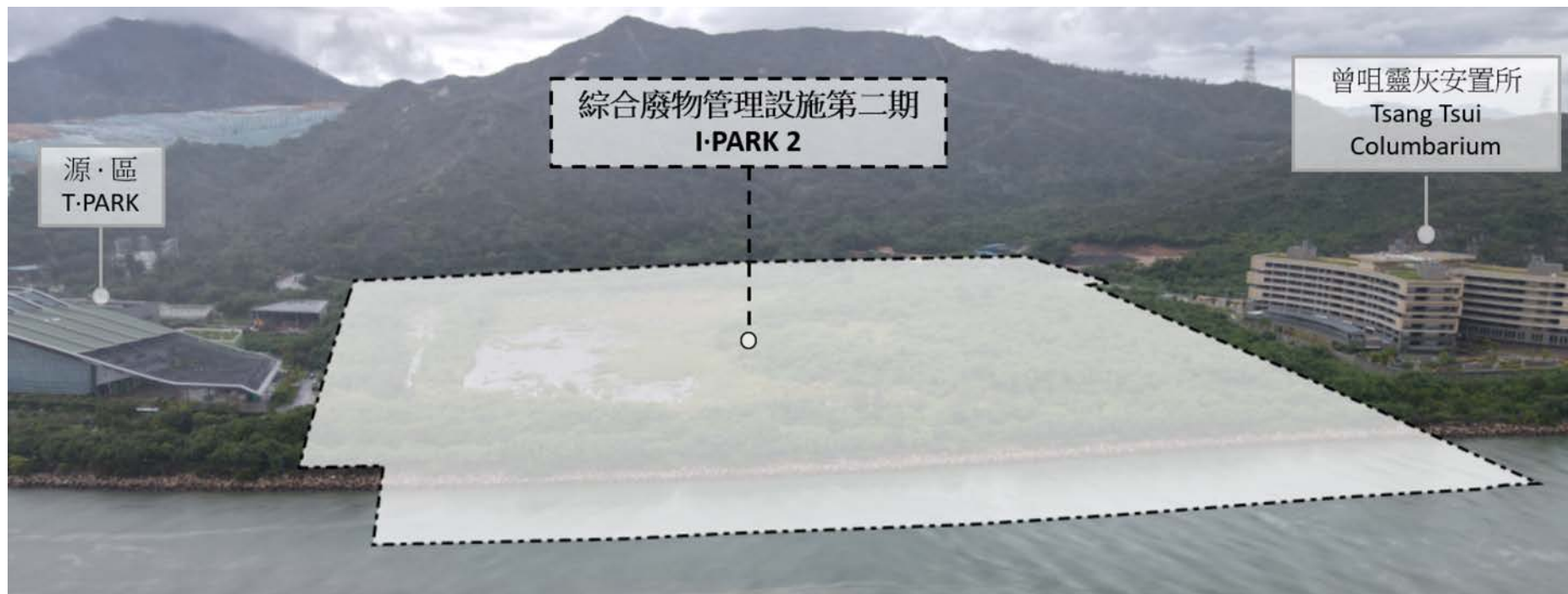
Photomontage of I•PARK1 upon Completion



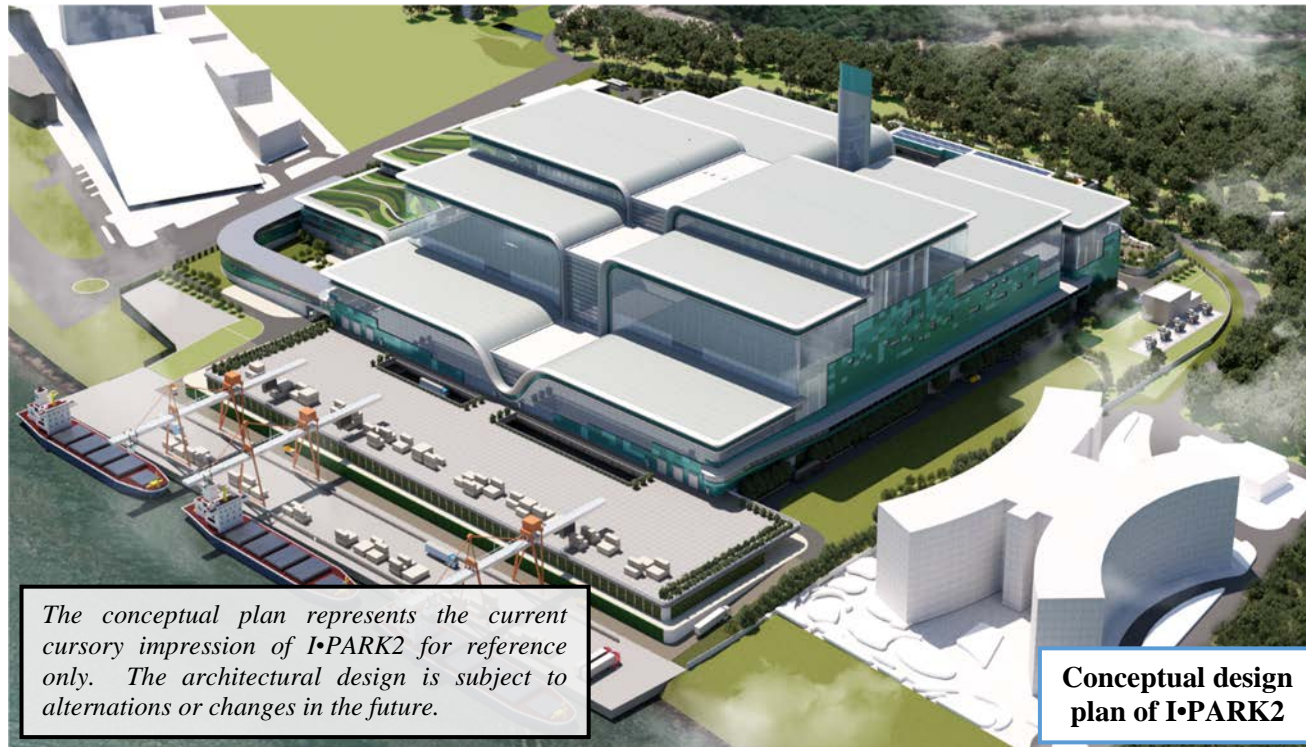
Location Plan of Proposed I•PARK2



Site Plan of Proposed I•PARK2



Reference Architectural Design of I•PARK2



Remarks:

- The above is only a conceptual design plan of the proposed I•PARK2 for the future contractor's reference in architectural design. The future contractor might submit a better architectural design option with higher cost-effectiveness without compromising functionality, visual and landscape elements of the facilities. Therefore, the final appearance may vary with the development of the project.