

A waste-to-energy journey

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Video 1 / 1

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Waste recovery: The heat energy recovered from the sludge incineration process warms T•PARK's three spa pools.

Waste recovery Energy education Waste-to-energy Reliable source **Prev Next**

T•PARK, Hong Kong's first self-sustained sludge treatment facility, is open to the public, with guided tours and spa pools available for reservation. Visitors can explore the park's environmental features and educational and leisure facilities to learn about the city's sludge treatment and experience the "waste-to-energy" process.

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One of the most technologically advanced facilities of its kind in the world, T•PARK near Tuen Mun combines advanced technologies into a single complex to treat up to 2,000 tonnes of waste per day. It also comprises power generation, desalination, educational and ecological facilities.

Waste recovery

Environmental Protection Department Environmental Protection Officer Cary Wan said the park's advanced incineration system can reduce sludge, the sediment deposited during the treatment of sewage, by 90%, thereby substantially reducing landfill loads.

"The T in T•PARK stands for transformation, which means the heat energy generated from the incineration process is recovered and turned into electricity that can support the needs of the entire facility.

"We want to use this as an example, to call on the public to deepen their efforts in energy saving and waste reduction."

The park has educational and leisure facilities to boost public awareness on the importance of waste reduction at source.

The heat generated during sludge incineration can be recovered for electricity generation to meet onsite needs. The surplus power generated can meet the needs of up to 4,000 households.

The park treats and reuses wastewater for irrigation, flushing and cleaning. Its seawater desalination plant produces fresh water for use on site and rainwater is also collected for non-potable use.

The heat energy recovered from the incineration process warms the park's three spa pools. They are set at hot, ambient and cool temperatures, and have sea views of Deep Bay, making the park a perfect place to relax and refresh.

Energy education

Secondary school teacher Alice Choi brings her students to the park to learn about the waste-to-energy concept.

"It really works here. Students are not just looking at the display boards but also to have first-hand experience of the facilities, which is related to sludge incineration. This can help them see things in a more concrete and multi-angle way."

The park's exhibition halls explain the waste-to-energy, sludge incineration, sewage treatment and power generation processes. Visitors can also view the facility's operations through windows and real-size models.

Secondary school student Bowie Tsang said visiting the park has made her determined to reduce waste.

"I learned there is a lot of sludge produced in just one day. I will try my best to recycle and produce less rubbish."

About 1,200 tonnes of sludge is produced in Hong Kong every day. Landfilling used to be the only means of sludge disposal in Hong Kong. Now with its advanced incineration system, T•PARK can reduce the volume of sludge by 90%, substantially reducing the landfill load.

With a green coverage ratio of 70%, the T•PARK includes a landscaped garden with five themes, a roof garden and a wetland habitat for wildlife.

Members of the public are welcome to visit the park to experience its educational and recreational facilities.

Click here for more T•PARK information.

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