A self-sustaining Waste-to-Energy island for Hong Kong’s residual waste

The joint venture Keppel Seghers - Zen Hua is in the process of designing, building and operating a self-sustaining Waste-to-Energy (WtE) island in Hong Kong which will be built on freshly reclaimed land.

The WtE island will prevent landfilling of 1.2 million tonnes of residual waste (waste that is not suitable for recycling) generated by one third of citizens of Hong Kong, which results in carbon emissions savings of 440 000 tonnes per year.

The WtE facility will consist of 6 lines supplying mainland Hong Kong with 2 GWh of electricity per day thanks to a highly efficient WtE process complemented by a well-developed state-of-the-art flue gas cleaning system complying with strict emission standards.

Waste heat will be used to dry the waste going to the mechanical sorting (for material recovery) and some of the heat will also be used to power the cooling system of the buildings on the island.

The facility will produce 40 m³ of desalinated water per hour for process, building services and irrigation of the green spaces which will cover the entire island including the facades of the WtE facility.

A wastewater treatment plant will ensure that no water needs to be disposed of and solar panels will cover the power needs of people working on the island.

Less landfills? Less carbon emissions!

The WtE island in Hong Kong will prevent landfilling of the 1.2 million tonnes of residual waste generated by one third of citizens of Hong Kong.

This means saving 440 000 tonnes of carbon emissions per year.

Text and pictures provided by Keppel Seghers - http://www.keppelseghers.com/en/