

Islands District Council
Paper No. IDC 61/2009

**Engineering and Environmental Impact Assessment Studies
for the Development of the
Siu Ho Wan Organic Waste Treatment and Recovery Facility**

Purpose

This paper aims to inform Members of the engineering and environmental impact assessment studies for the development of the Siu Ho Wan Organic Waste Treatment and Recovery Facility with the location shown on Figures 1 & 2.

2. The Organic Waste Treatment and Recovery Facility will turn organic waste (mostly food waste) into useful products such as compost and biogas (a renewable energy). The compost could be used as organic fertilizer for farming and horticulture. The biogas produced by the Facility, if employed to generate electricity, could meet the electricity demand of some 2,000 households, thereby contributing to reduction in use of fossil fuel and reduction in Green House Gas emission. In addition, the Facility will avoid landfilling of about 200 tonnes of waste every day, hence contributing to extending the useful life of landfills in Hong Kong.

Background

3. At present, Hong Kong disposes of about 9,400 tonnes of municipal solid waste (MSW) at landfills everyday. The organic fraction of the MSW, mainly food waste, amounts to over 3,700 tonnes, constituting about 38% and is the largest MSW category. Of the over 3,700 tonnes of organic waste generated daily, some 900 tonnes are from the commercial and industrial (C&I) sources such as restaurants and food processing industries. The disposal of such biodegradable waste direct to the landfills is not sustainable as it leads to rapid depletion of the limited landfill void space and the formation of landfill gas and leachate that require proper treatment for the protection of the environment.

4. In December 2005, the government published “A Policy Framework for the Management of Municipal Solid Waste (2005-2014)” (Policy Framework). The Policy Framework proposed that biodegradable materials such as food waste from C&I establishments can be separately collected at source for biological treatment to produce renewable energy and compost products. This not only reduce waste disposal but also recover useful resources in accordance with sustainability principles.

5. Following the Policy Framework proposal, we are planning the development of Organic Waste Treatment and Recovery Facilities in Hong Kong. The Facilities will receive and recycle source-separated organic waste generated from the C&I sectors (mostly food waste) into useful resources as well as minimizing landfill disposal.

6. We have conducted a site search for the Organic Waste Treatment and Recovery Facilities in 2007 and selected the site at Siu Ho Wan, North Lantau for the development of the Phase 1 facilities.

The Proposed Facility at Siu Ho Wan, North Lantau

7. The Siu Ho Wan Organic Waste Treatment and Recovery Facility, with a design capacity of 200 tonnes each day, will adopt advanced biological technologies, including anaerobic digestion and composting, to stabilize the organic waste and turn it to useful products such as compost and biogas for energy recovery. All the treatment processes, including the waste reception, will be carried out in enclosed environment or indoor with adequate odour control and waste water treatment provisions.

8. We envisage that upon commissioning of the Facility, there will be about 50 trips of enclosed waste vehicles traveling to and away from the Facility each day. The impact of the traffic induced by the Facility onto the existing roads should be minimal.

Engineering and Environmental Impact Assessment Studies

9. The proposed Siu Ho Wan Organic Waste Treatment and Recovery Facility is a designated project under the Environmental Impact Assessment Ordinance. To determine the detailed requirements of the Facility such that it could comply with the requirements and standards of the Ordinance, we are carrying out the Engineering and environmental impact assessment studies.

10. The environmental impact assessment study would address the key environmental issues arising from the construction and operation of the Facility, which include air quality, odour, noise, water quality, waste management, landscape, visual impact and hazard.

11. We will closely liaise with the Islands District Council, local community and other stakeholders during the study to address the concerns on the development of the Facility.

12. It is anticipated that the engineering and environmental impact assessment studies will be completed in early 2010. The Facility is scheduled to be commissioned before the middle of 2010's.

Conclusion

13. EPD will continue to solicit views from the public in conducting the engineering and environmental impact assessment studies in accordance with the requirements of the Environmental Impact Assessment Ordinance.

Environmental Protection Department
May 2009



