

## Technical Visit to North East New Territories (NENT) Landfill

By Ms Nikita CHAN

In the morning on 4<sup>th</sup> November 2017, a technical visit was organised by the Young Members Committee (YMC) with 25 attendees to the North East New Territories (NENT) Landfill. It is one of the three existing strategic landfills in Hong Kong. The visit was provided by Mr. Barry WAT of Far East Landfill Technologies Ltd., who has extensive experience in landfill operation over the years.

Mr. WAT first briefly presented the main characteristics of NENT Landfill, including the Design-Build-Operate (DBO) contract arrangement, waste reception operation and waste intake, design and installation of landfill liner systems, leachate collection and treatment processes, utilisation of landfill gas, and associated environmental control measures and regular monitoring. He also shared his valuable experience of landfill operation management, such as the planning of phase-by-phase landfilling, effective control of surface runoff during the wet season.

Mr. WAT provided a bus tour to the tipping area of the landfill and showed the waste tipping operations. The on-site visiting moment left a profound experience to the participants, where everyone admired the efforts spent by the workers who do the job at the scene on everyday. He then introduced the ammonia stripping process and biological treatment adopted in the Leachate Treatment Plant which is required to fulfil the stringent effluent discharge standards. He also presented the on-site usage of landfill gas for electricity generation and heat production, as well as the energy recovery at NENT Landfill, by treating and exporting the surplus landfill gas to Hong Kong & China Gas Company's (Towngas) production plant in Tai Po for use as alternative energy source. It is one of the largest off-site landfill gas utilisation schemes in the world which helps reducing up to 135,000 tonnes of greenhouse gas emissions in every year.

All participants gained an insight into the operations of landfill which is an essential element of waste management chain in Hong Kong. On behalf of the YMC, we would like to express our sincere gratitude to the speaker for the sharing and guided tour.

