NEA, NTU to jointly develop waste-to-energy research facility in Singapore

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The National Environment Agency (NEA) and the Nanyang Technological University (NTU) have signed an agreement to jointly fund and develop SGD40m ($29.6) waste-to-energy (WTE) research facility in Singapore.

Scheduled to enter service by late 2018, the facility will help in conversion of emerging WTE technologies from research into demonstration and test-bedding projects.

Said to be the first of its kind in Singapore, the waste to energy facility will serve as an open platform to support research and its translation, as well as training to build technical competencies in WTE sector.

NEA CEO Ronnie Tay said: “This collaboration with NTU underscores NEA’s commitment towards Singapore’s vision of becoming a zero waste nation.

“We hope that this facility will provide stakeholders such as research institutes, academia and industry with a platform to collaborate in and create more effective and sustainable waste management solutions through research, development, demonstration and test-bedding.”

The facility will be equipped to support projects which include turning waste and biomass into synthetic gas as well as cleaning and upgrading syngas to run a gas engine or turbine for higher energy recovery efficiencies.

Other projects include utilization of slag in engineering applications, novel flue gas treatment module for lower emissions, low-grade heat recovery and using a gas separation membrane to extract oxygen from air.

NTU deputy president professor Freddy Boey said: “Through this joint research facility with NEA, we aim to build a centre of excellence and a hub in waste management research.

“It will provide local institutions and industries access to the world-class research facilities and expertise at NTU, helping them to innovate and develop clean solutions that are globally competitive.

“Such innovations will help overcome energy and space constraints faced by Singapore and other urban cities. NTU looks forward to collaborating with the industry in these efforts.”

Image: officials from NEA and NTU during collaboration agreement signing ceremony. Photo: courtesy of

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