Cross section diagram of the Keppel Sagers Tuas WTE Plant

Keppel Integrated Engineering

Keppel Integrated Engineering (KEI) is a world-class technology and engineering division of Keppel Corporation Limited, a leading company listed on the Singapore Exchange Securities Trading Limited.

Keppel Sagers, a member of the KEI Group, is a leading provider of comprehensive environmental solutions, including alternative energy, ranging from consulting, design and engineering, technology and construction to operation and maintenance of plants.

Keppel Sagers provides technology and full-service solutions for the treatment of municipal and industrial wastes, biomass materials and medical waste, wastewater and effluent treatment, potable water, and desalination.

To date, Keppel Sagers has completed more than 850 water and wastewater projects and more than 100 wastewater projects in more than 30 countries worldwide. Keppel Sagers continues to actively pursue thermal waste treatment, water and wastewater treatment projects globally.

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Kappel Sagers Tuas Waste-to-Energy Plant

Senoko Waste-to-Energy Plant

Creating New Sources of Energy
One of the Most Compact in the World

Built on a land area of only 1.6 hectares, Keppel Seghers Tuas WTE Plant is one of the most compact WTE plants in the world. It has the capacity to treat 500 tonnes of solid waste a day to generate 23 MW of green energy, contributing to Singapore’s energy supply with the advantage that it is in excess of plant consumption.

Designed by a team of experienced engineers, the plant utilizes Keppel Seghers’ innovative technology to softly treat all components of the waste.

- Air-cooled Tumbling Grates which can withstand high temperature and abrasion, as well as exposure through raining and heavy loading of the grate.

- Roller which ensures that high heat transfer is achieved from the combustion of waste.

- Flue Gas Treatment System which effectively removes harmful and toxic gases, acid and particulates in the flue gas stream, and complies with international standards, is achieved.

Keppe1 Seghers Tuas Waste-to-Energy Plant at a Glance

Keppel Seghers Tuas Waste-to-Energy Plant is Singapore’s third incineration plant to be built, and the third to be done so under National Environment Agency (NEA) Public-Private Partnership (PPP) initiative.

Keppel Seghers, the environmental engineering arm of Keppel Integrated Engineering, was engaged to design and build the plant, and have a [xxxx] contract to operate the plant starting from Q3 2020. This contract was awarded by NEA under the PPP initiative, which aims to bring together resources, skills and experiences of both the public and private sector. Keppel Seghers is committed to apply the proven experience of incineration plants treating domestic waste in Singapore.

Senoko Waste-to-Energy Plant

Apart from Keppel Seghers Tuas WTE Plant, Keppel Seghers also operates Senoko Waste-to-Energy Plant (Senoko WTE Plant), which is the first incineration plant to be built in Singapore.

Senoko Seghers provides Operation and Maintenance (O&M) services for the plant which has the contracted capacity to treat 2,000 tonnes of solid waste a day. To achieve the latest emission requirement of the plant, which was completed in 1992, Senoko WTE Plant also involved with [xxxx] gas treatment technology for better performance.

First WTE plant built under the Public-Private Partnership initiative to effectively meet the needs of the public

"Capacity to treat 800 tonnes/day of solid waste to generate 22 MW of green energy"

"Together with Senoko WTE Plant, Keppel Seghers Tuas WTE Plant treats close to half of Singapore’s total volume of waste sent for incineration."