



Media Release

**SP GROUP AND GARDENS BY THE BAY PILOT ZERO-WASTE GASIFICATION SYSTEM**  
*System paves way for sustainable district solutions in Singapore*

**Singapore, 6 June 2019** – SP Group (SP) and Gardens by the Bay announced plans to pilot a zero-waste solution at the Gardens. Using compact gasification technology to convert waste into thermal energy and biochar (carbonised biomass), the system could help to reduce carbon emissions by up to 20 per cent. The smart waste management system could enable sustainable zero-waste districts to be viable in Singapore, bringing the country closer towards a circular economy.

At Ecosperity Week 2019, SP and Gardens by the Bay signed an agreement on the rollout of the system, supported by Temasek. The signing was witnessed by Minister for the Environment and Water Resources, Mr Masagos Zulkifli.

Gasification is an alternative to incineration and it reduces waste to only five per cent of its original volume. There is also no need for the sorting of plastics from general or food waste. This addresses some of Singapore's key waste disposal challenges.

Without the need to transport waste to offsite incineration plants, the use of refuse trucks will also be reduced significantly. This will help to ease traffic conditions and further reduce carbon emissions.

The pilot system can handle up to one tonne of waste per day and converts the waste into energy by-products as well as biochar for the Gardens. The main by-product is synthesis gas (syngas) that can be used for thermal heating. The biochar has been known to be used as a soil amendment in agriculture and horticulture, to condition the soil.

Mr Jimmy Khoo, CEO, Singapore District Cooling, SP Group, said, "We are developing district solutions to help Singapore achieve its sustainability goals. This paves the way for decentralised waste management for other businesses and residential estates. We are pleased to work with Temasek and Gardens by the Bay towards a zero-waste green space for Singaporeans to enjoy."

Mr Felix Loh, CEO, Gardens by the Bay, said, "As a garden that values nature and sustainability, we have a responsibility towards finding innovative ways to protect our environment. Gardens by the Bay is uniquely placed to allow for the testing of such an onsite system because waste collected in the Gardens can be directly converted and repurposed into by-products, which can in turn be used in the Gardens."

Besides providing an experimentation site and supplying waste for the pilot, Gardens by the Bay will also be studying the usefulness and viability of biochar in improving local soil conditions.

Waste generation in Singapore increased seven-fold over the past 40 years. In 2018, 7.7 million tonnes of solid waste was generated and this figure is projected to increase. Even with waste incineration, Singapore's only landfill at Pulau Semakau will be full by 2035. Building new offshore landfill sites is also not sustainable in land-scarce Singapore.



## **About SP Group**

SP Group is a leading energy utilities group in the Asia Pacific. It owns and operates electricity and gas transmission and distribution businesses in Singapore and Australia, and district cooling businesses in Singapore and China. SP Group is committed to providing customers with reliable and efficient energy utilities services. About 1.5 million industrial, commercial and residential customers in Singapore benefit from SP Group's world-class transmission, distribution and market support services. These networks are amongst the most reliable and cost-effective world-wide. SP Group also drives digital solutions to empower customers to manage their utilities, reduce consumption and save cost.

For more information, please visit [spgroup.com.sg](http://spgroup.com.sg) or for follow us on Facebook at [fb.com/SPGroupSG](https://www.facebook.com/SPGroupSG) and on Twitter @SPGroupSG.

## **About Gardens by the Bay**

An integral part of Singapore's "City in a Garden" vision, Gardens by the Bay is a national garden and premier horticultural attraction that showcases the best of garden and floral artistry for all to enjoy. Spanning 101 hectares in the heart of Singapore's downtown Marina Bay, it comprises three waterfront gardens – Bay South, Bay East, and Bay Central. Bay South, the largest at 54 hectares, officially opened on 29 June 2012.

Guided by the vision to be a world of gardens for all to own, enjoy and cherish, the Gardens' extensive plant collection, ever-changing floral displays, and myriad of engaging programmes have captured the imagination of many, while its Gift of Gardens community initiative, with President of the Republic of Singapore Madam Halimah Yacob as Patron, reaches out to people from all walks of life.

Since opening, Gardens by the Bay has welcomed more than 50 million visitors and garnered numerous international awards including Best Attraction Experience in the Singapore Tourism Awards 2019 and ASEAN Sustainable Tourism Award presented by ASEAN Tourism in 2018. The Gardens continues to refresh and refine its offerings, to be a place that everyone can enjoy – a garden where wonder blooms.

For more information, visit [www.gardensbythebay.com.sg](http://www.gardensbythebay.com.sg).