

## ESG PUSH

# SP Group in US\$370m deal that can cut emissions by up to 120,000 tonnes a year

It will build, operate Singapore's biggest industrial cooling system at STMicroelectronics' plant

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SP GROUP on Wednesday (May 18) clinched a US\$370 million (\$513 million) deal to build and operate a district cooling system at French-Italian chip-maker STMicroelectronics' manufacturing site in Ang Mo Kio over 20 years.

Once the system is operational in 2025, it will be Singapore's largest industrial district cooling system, dwarfing the one built by Keppel DHCS, a wholly-owned subsidiary of Keppel Infrastructure, at Woodlands Wafer Fab Park.

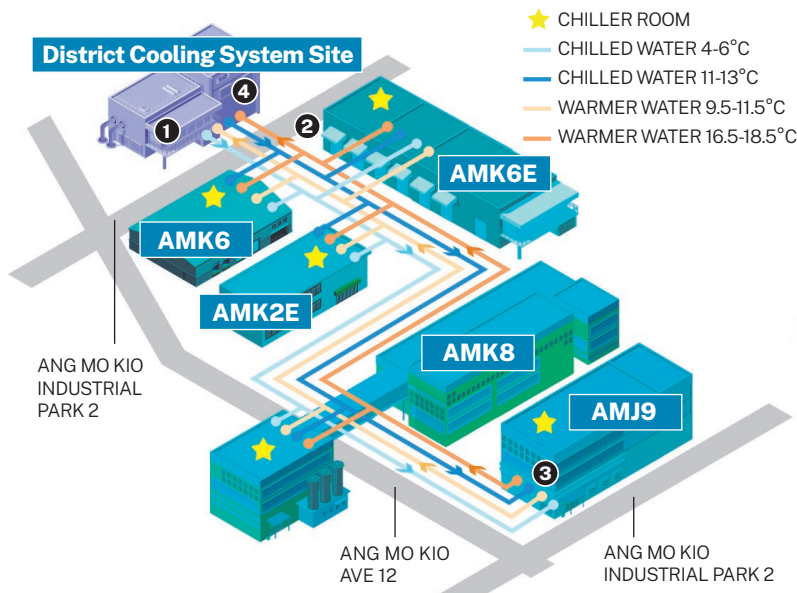
The site, ST AMK TechnoPark, is STMicroelectronics' single largest wafer-fabrication site by volume, and the district cooling system is expected to help the facility cut back on its emissions by up to 120,000 tonnes a year – equivalent to taking 109,090 cars off the road.

The emissions to be avoided accounts for 30 per cent of the company's Singapore carbon emissions last year.

Given that the Singapore government has announced that it will progressively raise the carbon tax rate to S\$50 to S\$80 per tonne by 2030, STMicroelectronics could potentially save as much as S\$42.6 million in carbon taxes within the decade with the move.

In a statement, Rajita D'Souza, its president of human resources and corporate social responsibility, said the adoption of the cooling system in Singapore is a "strong statement" of the company's commitment to its carbon neutrality target.

## Equivalent to taking 109,090 cars off the road



- 1 Chilled water is generated in a central cooling plant.
- 2 A closed loop network of insulated pipes distributes the chilled water to each building.
- 3 When the chilled water reaches the building, energy transfer stations within each building circulate the cold energy from the network into the building's air-conditioning system, which dehumidifies and cools the air.
- 4 The warmer water is then circulated to the cooling plant, via the return pipes, to be chilled again. The whole process repeats itself.

Source: SP Group

STMicroelectronics has set a global target to attain carbon neutrality by 2027, but the company has not deployed district cooling at any of its manufacturing facilities yet.

With district cooling, which works by centralising chilled water produc-

tion to optimise chiller efficiency, its Ang Mo Kio facility will also meet the Minimum Energy Efficiency Standards set by the National Environment Agency (NEA), the company added.

To get the project going, SP Group and Daikin Singapore formed a new

joint venture, which is 70 per cent owned by SP and 30 per cent owned by Daikin.

The new district cooling plant for the facility - which will be situated just opposite of it, on Daikin's premises - will host a cooling capacity of up to 36,000 refrigeration tonnes (RTs), enough to meet STMicroelectronics' wafer fabrication and spatial cooling needs.

For comparison, the district cooling plant built by Keppel DHCS at Woodlands Wafer Fab Park supports 11,000 RTs. The capacity for Keppel DHCS' new plant at Jurong Innovation District is 14,000 RTs.

Its capacity will, however, be comparable to that of Keppel DHCS's plant at Changi Business Park (37,500 RTs), which serves 20 developments.

SP Group's district cooling system at Marina Bay remains the utilities group's largest project, at 70,000 RTs.

Speaking at the deal's signing ceremony, Minister of State for Trade and Industry Low Yen Ling said the private sector plays an important role in advancing Singapore's climate and sustainability goals.

This development, in particular, will contribute to Singapore's climate ambition to achieve net-zero emissions by or around mid-century under the Singapore Green Plan 2030, she noted.

Low urged businesses to plan for the longer term. "By implementing energy efficiency measures, businesses become more resilient and are able to better buffer against the impact of price surges and global uncertainties," she said.