

# Cracking the code

Carbon capture and hydrogen are key to Jurong Island's sustainability road map. Here are five notable projects in the pipeline **BY WONG PEI TING**

### Carbon capture and utilisation (CCU) translational test bed

A\*Star is working towards creating a facility for companies to pilot and scale emerging CCU technologies more efficiently and cost-effectively by tapping plug-and-play, modular reactor-catalyst set-ups.

### Hydrogen-ready cogeneration plants

Three gencos are developing hydrogen-ready power plants. Keppel's is scheduled to complete in 2026, Sembcorp Industries' is expected to be operational by 2026, and YTL PowerSeraya's is expected to come on by end-2027.

### Green hydrogen supply agreement

Industrial gas supplier Linde is building a nine-megawatt alkaline electrolyser plant to produce green hydrogen as part of a long-term supply deal with German chemicals firm Evonik. The new plant will be the largest electrolyser ever installed in Singapore.

### Cross-border carbon capture and storage project

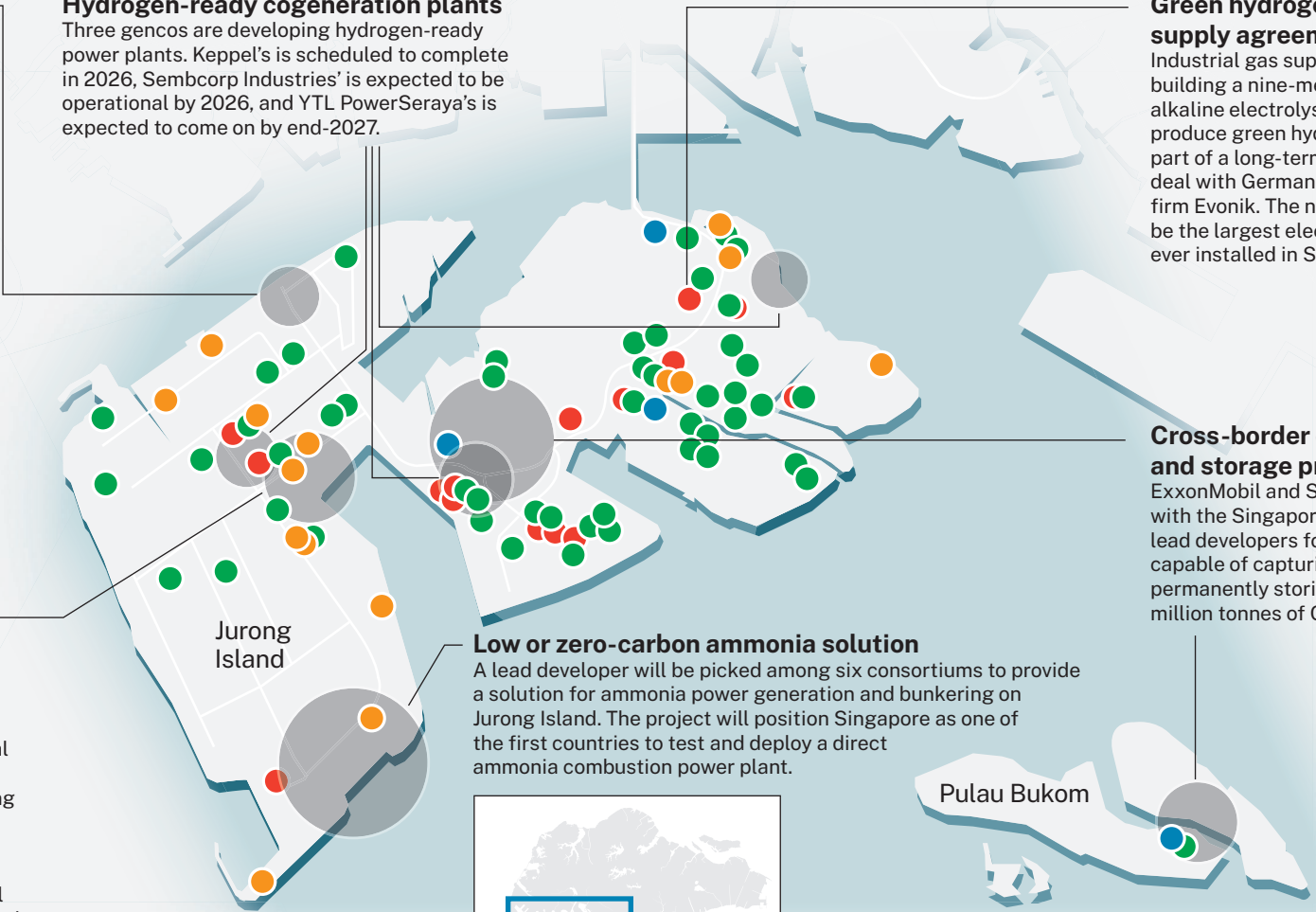
ExxonMobil and Shell are working with the Singapore government as lead developers for the project capable of capturing and permanently storing at least 2.5 million tonnes of CO<sup>2</sup> a year by 2030.

### Vopak x Air Liquide ammonia cracking study

Ammonia is a carbon-free hydrogen carrier. French industrial gases company Air Liquide, which is building an industrial-scale ammonia cracking pilot plant in Belgium, partnered tank terminal operator Vopak last month to study how they might produce and distribute low-carbon hydrogen on Jurong Island.

### Low or zero-carbon ammonia solution

A lead developer will be picked among six consortiums to provide a solution for ammonia power generation and bunkering on Jurong Island. The project will position Singapore as one of the first countries to test and deploy a direct ammonia combustion power plant.



- Refineries and crackers
- Chemical makers
- Gas suppliers and services
- Storage and logistics