

Text 2

From a distance, the ferry docking at the pier resembles the other vessels that hop between Hong Kong's outlying islands and the peninsula every day.

But a closer look reveals a grid of gleaming solar panels on the ferry's roof and, instead of the usual throbbing engine noise, there is a barely audible buzz.

The Solar Eagle and three similar vessels shuttle golfers to and from an 18-hole island course. Together they form the world's first hybrid-powered ferry fleet and a commercial proving ground for technology that could transform the future of marine travel.

The technology, similar to that used in hybrid cars, has been developed by an Australian company called Solar Sailor.

Electricity created by the solar panels and stored in a battery powers the engine while the vessel comes in and out of the harbour. Once out in the open ocean and a faster clip is required, the diesel kicks in.

One of the fleet, the Solar Albatross, sports two sails covered in solar panels that can harness both the sun and the wind to further reduce reliance on fossil fuel.

Robert Dane, Solar Sailor's founder, says that the technology offers ship owners huge fuel savings and could be used on all types of vessels.

"It makes sense. You're out there on the water and there's so much light and even more wind energy".

The Hong Kong Jockey Club, which runs the island golf course, says it has seen "significant fuel savings" but was still monitoring the overall performance of the ferries.

Mr Dane says that on the golf course-run, the hybrid technology saves between 8% and 17% on the fuel bill. However, repair and maintenance costs have been more than anticipated.

Mr Dane says the company will soon announce a trial with an Australian mining company to attach a 40m tall solar sail to a newly-built bulk carrier that will ship iron ore and other raw materials to China.

By harnessing the wind, the company estimates that the giant sail could shave 20% to 40% off a ship's annual fuel bill, with the solar panels contributing an extra 3% to 6% saving.

If, as Mr Dane hopes, the technology is adopted more widely, it also has the potential to clean up the shipping industry, which is said to emit more greenhouse gases than commercial aviation.

Mr Dane is optimistic about the company's future even though after more than a decade of doing business it has yet to turn a profit.