

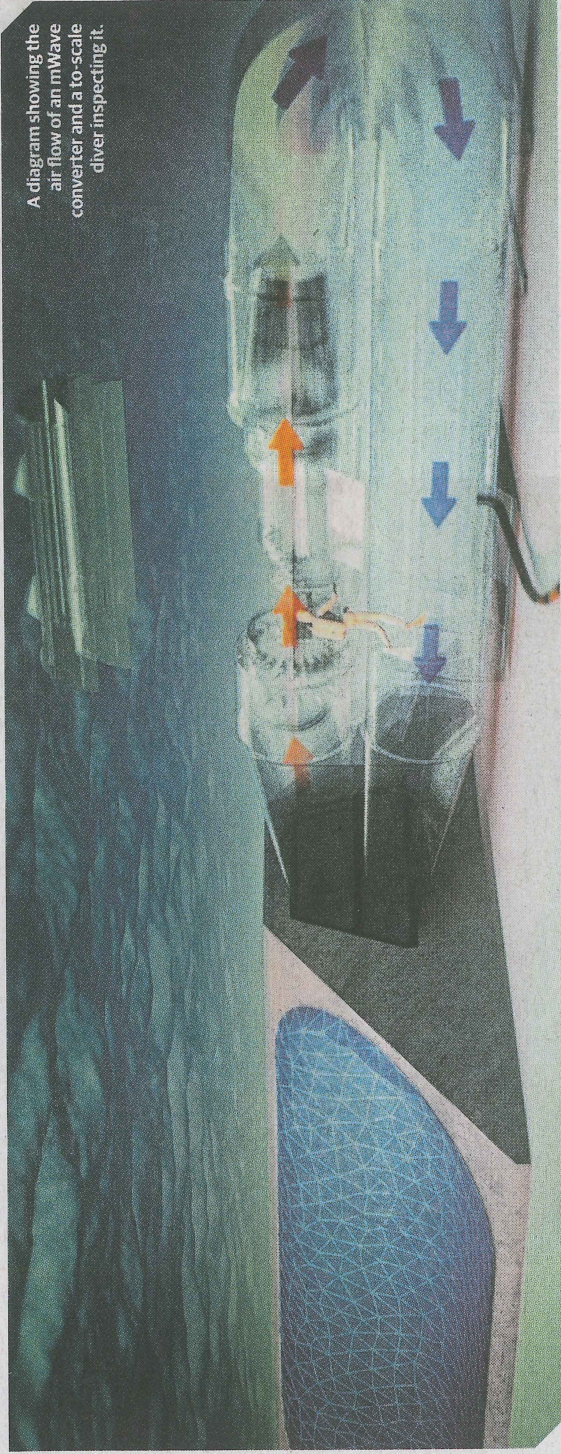
Brothers Capture Wave Energy

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Press Media

BROTHERS CAPTURE WAVE ENERGY



A diagram showing the air flow of an mWave converter and a to-scale diver inspecting it.

WA is fast becoming a world leader in wave energy, with brothers Glen and Shawn Ryan among west coast inventors developing this newer renewable power source for world markets.

The mechanical engineers are the brains behind Bombora Wavepower, a Bentley-based start-up that has developed a wave energy converter.

This year the company announced that the results of its detailed feasibility study for a commercial-scale wave farm showed the cost of electricity from Bombora technology would be comparable with the cost of electricity from off-shore wind farms and solar arrays in Europe by 2023.

Bombora's study was based on a proposed 60MW wave farm in Peniche, off the coast of central Portugal.

The site is 2.5km long, about 700m offshore, with 40 1.5MW Bombora mWave converters deployed at a depth of 10m.

And from next year electricity generated by the 40 mWave devices at the site will be delivered into the grid via subsea cables.

Bombora engaged recognised industry experts and local suppliers to ensure the technical viability and costing accuracy of its tests, including WorleyParsons and WavEC.

The company's chief executive officer Sam Leighton said the company was proudly West Australian with all the design and technology developed locally, and support from engineering teams at WorleyParsons, ECG Engineering and Curtin University.



SAM LEIGHTON
BOMBORA CHIEF
EXECUTIVE OFFICER

development, testing and refinement. Bombora's breakthrough mWave technology will be on the world stage and it will be competing with other renewables in the lucrative energy market within a year," Mr Leighton said.

HOW IT WORKS

The mWave is a concrete structure that rests on the sea floor, 10m below the surface. It's covered with a flexible rubber membrane that pumps air through a turbine to produce electricity.

The company says each mWave can generate up to 1.5MW of electricity.

This means a wave "farm" of 40 mWaves on an average day would generate enough power to supply 14,000 homes - a city the size of Albany.

On a rougher day, the wave farm could supply power for 85,000 homes - 10 per cent of WA's domestic needs.

Within seven years, Bombora expects electricity generated by the mWave will match the cost of advanced gas turbines.

Bombora says the mWave is like a fully submerged reef and will not be visible and will not impact on recreational use of the coast.

