

# Clean electricity ebbs and flows from the Swan River

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Award-winning technology designed to produce electricity by harnessing the power of waves is being tested in a unique experiment on the Swan River.

Perth-based [technology](#) company Bombora Wave Power is testing a one-seventh size prototype of its Wave Energy Collector device next to the Como Jetty.

The technology was invented by brothers and mechanical engineers Glen and Shawn Ryan.

Their prototype was launched yesterday by Energy Minister Mike Nahan and WA Chief Scientist, Professor Peter Klinken.

The field test involves a seven-metre long structure placed in the water next to the jetty.

The structure contains a long, flexible, blue membrane. The water movement causes the membrane to move, much like a bellows, and force air through a turbine and thus generate electricity.

"We expect the prototype will be there for six to 12 months," Shawn Ryan says.

"On a good day, we expect to generate up to a kilowatt of power a day, which would be enough to power approximately two average houses."

The Wave Energy Collector is different to other [wave energy](#) systems, which usually involve tethered buoys that float in the ocean.

Instead, the Bombora system is anchored close to shore.

It was visible at yesterday's launch because of a low tide, but it would normally be completely submerged.

Bombora has already held small-scale trials and tank testing in conjunction with the Australian Maritime College, four WA universities and the Pawsey Supercomputing Centre at Kensington.

The field trial at Como is being held with the cooperation of the local indigenous community, the local council, the Department of Parks and Wildlife and Department of Transport.

If all works well with the field trial and subsequent technology testing, the Bombora device could end up being used at dozens, if not hundreds of small islands around Indonesia.

That is because Bombora has already signed a technology evaluation agreement with a potential customer, Anoa Power of Indonesia.

Bombora says the devices could also be aggregated to form wave farms that could [power](#) entire cities, communities and industrial complexes.

The firm is aiming to build a full-size electricity generating wave machine next year.

"We're investigating opportunities in number of different countries, including Indonesia, Portugal and Scotland and of course, Australia," Mr Ryan says.

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Provided by Science Network WA

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