



# West Coast sites considered for wave energy

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TWO sites off the West Coast are being considered for a wave energy system, following a company's announcement that about 17 times South Australia's base-load power needs could be met by harnessing near-shore waves.

Wave energy developer Carnegie Corporation has not yet identified a preferred site in South Australia, as it needs to consider factors such as wave resource, access and grid connectivity.

It is assessing a number of sites, including one near Ceduna and another near Elliston, plus sites at Kangaroo Island and off the

South East, near Mount Gambier.

It is likely a site will be selected in the next six to 12 months and it will depend on the feasibility of the sites being assessed whether one or more sites will be chosen.

The independent report commissioned by Carnegie into wave energy capabilities also found South Australia had a deep water energy resource more than 40 times the State total

tion capacity.

The report aimed to independently assess the potential near-shore wave energy resource along Australia's

southern coastline, providing further detail on 17 potential wave farm development sites.

Carnegie managing director Dr Michael Ottaviano said: "This report further supports Carnegie's view that Australia, and particularly South Australia, has one of the world's best wave energy resources - a resource we hope will be utilised through technologies such as CETO for base-load power generation.

"The World Energy Council estimates that the energy that could be harvested from the world's oceans is equal to twice the amount of electricity that the world currently consumes.

"Australia has the longest coastline with exposure to the most reliable wave energy regime in the world due to its proximity to the circumpolar Southern Ocean and the West Wind drift."

Further site specific wave resource modelling and wave data collection are recommended for the company to build a more accurate picture of the actual extractable resource.

Sites also need to be individually assessed to identify development constraints, such as environmental impact, planning regulation and engineering design.

## HOW IT WORKS

- Carnegie's wave energy system is called CETO and operates anchored to the sea floor
- Submerged buoys are tethered to seabed pump units and they move in harmony with passing waves, driving the pumps which in turn pressurise seawater that is piped ashore
- The high-pressure seawater drives hydroelectric turbines, generating base-load, zero-emission electricity