



World-first: An artist's impression of a wave farm, consisting of wave energy converter units anchored to the seabed.

Firm unveils wave energy project

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Australia's first facility to generate power from wave energy is being built off Garden Island, south of Perth.

Fremantle company Carnegie Wave Energy yesterday unveiled a \$12.5 million project that will create enough electricity to power 3500 homes.

The five megawatt plant, scheduled for completion next year, employs a world-first design that uses the bobbing movement of submerged buoys to drive pistons on the seabed. In turn, the pistons drive pressurised water to an onshore turbine, which generates electricity that is fed into the main grid.

Work has begun off Garden

Island's west coast for a prototype unit, which will be tested this year. The full-scale plant, measuring about 200m by 200m, will then be constructed off the island next year.

"It's a relatively small footprint because wave energy is a very concentrated form of energy," Carnegie's chief operating officer Greg Allen said.

The units will be fixed to the seabed at a depth of 24m, with a network of 30 buoys floating in the water column below the surface.

Mr Allen said the technology could be deployed on any south-west-facing coast, and that he envisioned a string of bigger facilities near populated areas throughout southern Australia.

The fact that most population centres were near the coast made

wave energy attractive, he said. The system could also potentially be used to supply power to coastal water desalination plants.

Energy Minister Peter Collier said technologies such as wave energy would be essential to meet the national target of 20 per cent renewable energy by 2020.

Other technologies, such as geothermal energy, were still some years away from commercial viability, he said.

WA gets about 5 per cent of its power from renewable sources, predominantly wind energy.

Mr Collier said the 20/20 target was "a challenging and difficult prospect", and that WA needed to "hit the ground running" by funding technologies that could be commercialised rapidly.