



Portland frontrunner for clean energy project

Big wave power plan

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PORTLAND could soon be home to Australia's first power station powered entirely by the ocean.

The \$500 million plant would harness the energy of waves to generate 50 megawatts of electricity — enough to power 25,000 houses.

Part of the plant would also be used for desalination to create up to 50 billion litres of fresh water a year.

West Australian company Carnegie Corporation held talks about its ambitious project with the Victorian Government last month.

Carnegie managing director Michael Ottaviano said Port-

land stood out as a likely site because "it has everything going for it".

"It has consistent 3m swells and a local aluminium industry that needs a lot of power and easy access to the national power grid," he said.

"Portland also has port access so we can build and export our technology to other countries."

Dr Ottaviano said the company's technology revolved around a system of submerged buoys connected to special underwater units.

As waves moved the buoys backward and forward, they powered the units which then pumped seawater ashore at high pressure to drive turbines and create electricity.

Dr Ottaviano said the demonstration plant would be the

world's first wave-run power station capable of generating base-load electricity.

"Our technology only needs swells as small as 1m, which means it doesn't stop and start like other renewable energy sources," he said.

And Carnegie would operate the world's first zero-emission desalination plant.

Dr Ottaviano said other forms of wave technology used surface-mounted structures, which had to contend with storms.

"Ours is the only system in the world that is fully submerged so there is no aesthetic impact," he said.

Dr Ottaviano said Portland was one of a few sites in Australia being considered for the demonstration plant.

Others included the Limestone Coast in southeast

South Australia and Wollongong and Newcastle in NSW.

The chosen site would also be home to a \$30 million manufacturing plant to build and export the technology.

The plant is expected to create 40 direct jobs and 100 indirect jobs.

Dr Ottaviano said the company intended to choose a site this year and hoped construction would begin in 2009.

"The ocean's energy is Australia's largest and cleanest energy resource and so far it's totally untapped," he said.

"We hope to change that."

A spokesman for Energy and Resources Minister Peter Batchelor said the Government was assessing the proposal.

How wave technology will work:

- 1 Waves move underwater buoys linked to units
- 2 These drive seawater ashore at high pressure – first to a desalination plant to create fresh water and then to turbines to create electricity
- 3 Electricity and fresh water feeds into power and water grids
- 4 Excess seawater returns to ocean

