

Portuguese wave-power snake dead in the water

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An off-shore electricity generator based on wave power off of Portugal's coast. Opened in September as a world "first" in producing electricity from waves, a pioneering installation here is dead in the water having functioned for only a few weeks in a stormy process of research and development

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First it had to be taken out of service and dismantled because of technical problems. And now one of the main investors in the project, which had a start-up cost of nine million euros (12.3 million dollars), has gone bankrupt.

The structure, five kilometres (three miles) out to sea off Povoá do Varzim in northern [Portugal](#), was put into service officially in September by Economy Minister Manuel Pinho after three years of development.

"The first project in the world for the commercial exploitation of [wave energy](#)." With these words the minister launched the so-called "wave park." A frigate of the Portuguese navy stood by to honour the event.

The installation has modest generating capacity however, being capable of producing 2.25 megawatts or the output equivalent to that of one wind turbine.

It comprises three units built like articulated sea snakes which lie semi-submerged and undulate with the movement of the waves to generate current.

The three serpent-like units were taken ashore several times for so-called "checks" but since November they have been lying immobile in the northern port of Leixões.

"There was a recurrent problem with the movements of the hydraulic screws in the three machines, and this is why they have been removed from deep water," Rui Barros, who is one of those in charge of the Agucadoura wave park told AFP.

But, on inspection, "we saw that the problem was serious, generalised, and not incidental."

The main partner in the park is Energias de Portugal. A senior executive in the group, Jorge Cruz Morais, said: "The machines had a hard winter in maritime conditions, and they have been brought ashore for repairs. Do not forget that this is a project."

However, several sources involved in the scheme said that beyond the technical failings, the very existence of the installation is now threatened by the bankruptcy of Australian investment group Babcock & Brown.

The Australian firm owns 35 percent of a consortium called Ondas de Portugal, which was created to develop the system. EDP owns 45 percent of the entity and Portuguese electrical engineering group Efacec owns 20 percent.

An unnamed source in the Australian company, quoted by the website of the Portuguese weekly magazine Expresso, said: "It is not a profitable project. It will become so by growing in size. But the current phase is compromised unless a new partner can be found."

Meanwhile, British company Pelamis Wave Power, the partner for technology in the project, announced in February that it had signed a contract with EON-UK, a subsidiary of EON, the leading energy group in Germany, to develop a similar project in Scotland using a new generation of power converters.

Cruz Morais said that EDP was also considering using this new version or "two or three other technologies" which exist.

EDP was still ready to invest in wave power despite "perfectly normal setbacks in a process of research," he said.

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