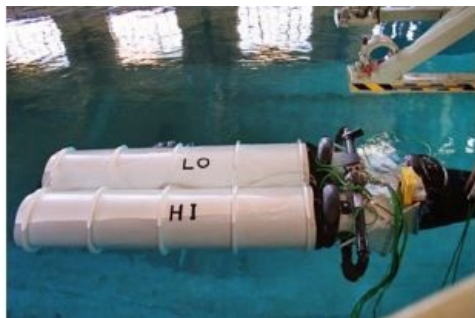


Wave Energy Converter Tested



The UK's dependence on energy from non-renewable sources is being challenged by a new wave energy converter called Anaconda that mimics the action of a sea snake. Now in final proof of concept testing at QinetiQ's facilities, Anaconda is producing energy data at an estimated cost that is excitingly low and as such may offer a serious and cost effective alternative in the delivery of future clean energy supplies.

The Anacondas - up to 200 metres long and made almost entirely of rubber - could each be capable of generating 1 MW of power; typical farms of 50 could create enough electricity to fuel 50,000 homes.

Anaconda is developed by double Queen's Award winners, Checkmate Group. The first field of Anacondas could be in commercial production and start deployment off the UK coastline by 2014. Anchored to the seabed and floating just beneath the surface, each Anaconda is continually squeezed by passing ocean waves. These waves form bulges in the water-filled tube and travel down its length developing the power to drive a turbine in the tail. The electricity created would be captured and cabled ashore.

The original idea came from Professor Rod Rainey, a chief engineer with engineering design consultants Atkins. He saw the problem holding back wave energy machines is they tend to deteriorate over time in the harsh marine environment. Anaconda is non-mechanical: it is mainly rubber, a natural material with a natural resilience and so it has very few moving parts to maintain.

Early stage research & development was supported by the Carbon Trust's Marine Energy Accelerator (MEA) which helped identify and tackle key development challenges. Based on their MEA study they said the projected costs of Anaconda could represent a significant improvement over the best current renewable energy devices.

Anaconda is now in the final stage of exhaustive proof of concept testing at a 270 metre wave test tank run by QinetiQ in Gosport (UK).

The targets set by the government are that the UK should source 20% of its entire electricity needs from all renewable sources by 2020. Anaconda has the potential to make a significant contribution to this target. With worldwide patents, British designed and manufactured, Anaconda could be exported or licensed for use across the world.

Other potentially rich coasts include the USA and South American western seaboard, South Africa, Australia, parts of Malaysia, Japan, New Zealand, and the western facing coasts of Europe. As well as being a significant export opportunity for British industry it should create a sizable number of British jobs in the renewable sector. Smaller versions of Anaconda that could also be co-located with off-shore wind farms - where they could piggy-back the energy collection grid.