

# Surf's Up For Offshore Oil And Gas Workers

**E**xperienced Australian offshore oil and gas workers could soon be working the waves with the first Western Australian wave energy project commencing next year.

While debate rages about the oil and gas industry luring technical professionals from other sectors with its big pay cheques, Carnegie chief executive officer Dr Michael Ottaviano said that the development of wave energy in Australia is likely to use engineers from the petroleum industry it is competing with as an energy source.

Dr Ottaviano said that Australia could rival Scotland, which is attempting to capture the wave energy industry by virtue of its offshore engineering experience and good wave resources – and “we’ve got just as much, if not more, competent offshore engineering experience from the oil and gas industry and our wave resources are some 20 times greater than Scotland”.

He said that Carnegie’s project, which he said provided a unique opportunity for Australia to become a “technology provider rather than technology taker”, is the first such project in the southern hemisphere which also uses Australian-owned and developed CETO technology, which is the only one of its kind in the world.

CETO - the name of a Greek sea goddess (*Keto* in Greek) who, legend has it, bore her husband Phorcys a host of monstrous children - is a wave energy technology that converts ocean swells into renewable power and desalinated freshwater. The freshwater is a major bonus for the dry continent of Australia.

Developed in WA over the last 10 years at a cost of \$60 MM, CETO differs to other wave energy technologies by operating out of sight and underwater, where it is anchored to the ocean floor and generates electricity onshore, rather than offshore.

The CETO units move with the motion of passing waves, driving pumps which deliver pressurised water to shore via a pipeline, which in turn drives hydroelectric turbines, generating zero-emission electricity.

The unique Australian technology has already been snapped up by the world’s largest

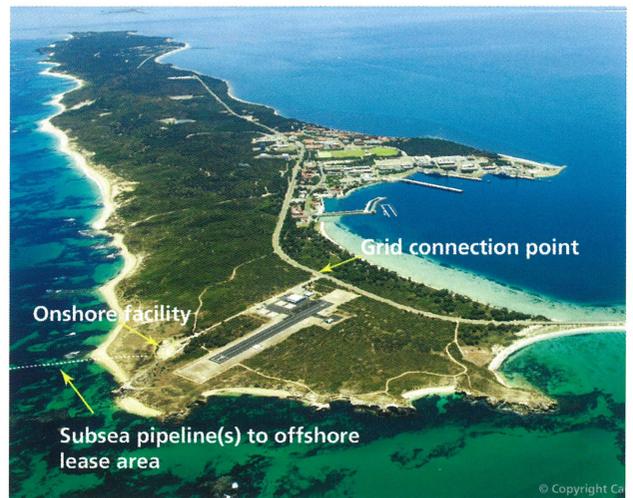


Perth Wave Energy Project Overview. Image courtesy of Carnegie Energy.

electricity generator, French company EDF, for use on Reunion Island.

State and Federal government funds comprise half of the project’s \$31.2 MM cost, with New York-based investors Lind Group also providing funding.

Carnegie has signed Memorandums of Understanding with the Department of Defence and West Australian retailer Synergy.



Garden Island, Western Australia. Image courtesy of Carnegie Energy.

Announcing on 1 May the Australian Government’s \$9.9 MM that will be provided for Carnegie’s \$31 MM Perth wave energy project upon successful completion of key project milestones, Federal Energy Minister Martin Ferguson said that the project’s by-product of emission-free desalinated water was a “welcome bonus” because “this is where I see Australia growing into renewable energy jobs of the future”.

Construction of Australia’s first commercial scale grid-connected wave project will commence next year, built on and around Garden Island, with power delivered by the end of 2013.

The project’s onshore power generation facility will be located at Australia’s largest naval base HMAS Stirling, and is expected to produce 2 MW of electricity by 2014, with later expansion to 5 MW.

A CSIRO study last year found Australia’s wave energy alone was capable of providing three times Australia’s annual energy consumption, which was 50,000 MW.

Ferguson said that Australia’s 37,000 km of coastline gives it vast potential for underused wave energy to be unlocked, and the Perth Wave Energy Project will create many jobs and opportunities for local service providers in Fremantle.

Carnegie is building the reputation of the Australian invented and owned CETO technology through projects in France, Canada, Ireland and Bermuda. As awareness continues to grow, there are likely to be opportunities to promote Australia’s expertise in offshore engineering further afield. And this is where Australia will see its renewable energy jobs of the future – in the specialist skills of our researchers and engineers. ■