



# Waves charge ahead

**PETER LAW**

INSTALLATION of a \$31 million wave farm to generate electricity off the WA coast is due to start this week.

The Perth Wave Energy Project – backed by State and Federal Government funding – is the culmination of a decade of research by Carnegie Wave Energy.

The Fremantle-based firm will deploy three giant 11m diameter buoys 3km off Garden Island, south of Perth.

Anchored to the sea floor, the fully submerged buoys will bob with the waves to move pumps that pressurise water.

Delivered onshore by an underwater pipe, the high-pressure water will drive turbines to generate electricity.

The renewable power will be sold to the Defence Department to use at the HMAS Stirling naval base.

Onshore works at Garden

Island are already underway and underwater construction starts this week, offshore conditions permitting.

Dr Michael Ottaviano, Carnegie Wave Energy chief executive, said there were few better places in the world to develop wave energy technology than WA.

“Theoretically, the resource could supply WA some 10 times over,” he said. “Practically, I’d hope that 10 to 20 per cent of WA’s electricity would be coming from waves in the next 20 years.”

A jack-up rig is this week due to start drilling 12m-long piles into the sea floor.

“It’s a huge moment for us. We’ve gone from being a research and development company into the cusp now of commerciality and production,” Dr Ottaviano said.

“We’re no longer doing

small-scale prototypes – we are now building our first project. It’s the first time anyone has done this anywhere in the world in terms of building a wave farm.”

The pipeline, onshore power station, pumps and buoys will follow next year. Carnegie is aiming for it to be operational by the middle of 2014.

The high pressure water brought ashore at Garden Island will also be desalinated via reverse osmosis.

“To be able to add the desalination to this project allows us to demonstrate the full functionality of the technology, doing both power and water,” Dr Ottaviano said.

The desalination plant element of the scheme will go before the Metro South West Development Assessment Panel on Thursday for approval.