



## Media Release

28 September 2016

### Wave, solar and energy storage combine forces to power WA island

Could a mix of renewable energy completely and independently power Garden Island off the coast of Perth, Western Australia?

With \$2.5 million in support from the Australian Renewable Energy Agency (ARENA) local Perth company, Carnegie Wave Energy, is set to design and build the world's first renewable energy island 'microgrid' that includes wave energy generation as part of the mix.

The total \$7.5 million project will involve the construction and integration of 2 megawatts (MW) of photovoltaic solar capacity and a 2MW/0.5MWh battery storage system, coupled with Carnegie's own unique and innovative CETO6 off-shore wave energy generation technology developed at the same site with ARENA funding support.

ARENA CEO Ivor Frischknecht said the landmark project represented the next generation of Carnegie's wave technology and is expected to demonstrate the viability of integrating a renewable energy based microgrid with a utility-scale distribution network.

"It will be the first time wave energy will be integrated into a microgrid, and if successful this diverse technology system could set a great new exportable opportunity for Australia to island nations around the globe," Mr Frischknecht said.

Island nations regularly face costly and unreliable energy supply issues, often reliant on expensive diesel fuel generators.

"With limited land available, wave energy generation supported by a reliable microgrid of battery storage and solar PV could be a better, cheaper and more sustainable way to power remote coastal or island communities long-term, displacing their reliance on diesel fuel."

Carnegie's system is a small-scale power grid designed to operate independently or in conjunction with the Western Australian electricity network's main electrical grid, seamlessly transferring between the two modes: off-grid and island mode. The two modes of operation will demonstrate the system's future application for a range of fringe-of-grid and off-grid scenarios.

"ARENA is excited to help local companies, like Carnegie, develop new renewable energy solutions that have the potential to change the way the world generates power."

"This project is a clear example of technology progress; that given time, and with the right government support, emerging renewable energy technologies can progress along the innovation chain towards commercialisation."

The project will begin construction on Garden Island before the end of this year, and is expected to be up and running by mid-2017.

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### **About the Australia Renewable Energy Agency (ARENA)**

ARENA was established by the Australian Government to make renewable energy technologies more affordable and increase the supply of renewable energy in Australia. Through the provision of funding coupled with deep commercial and technical expertise, ARENA provides the support needed to accelerate the development of promising new solutions towards commercialisation. ARENA invests in renewable energy projects across the innovation chain and is committed to sharing knowledge and lessons learned from its portfolio of projects and information about renewable energy. ARENA always looks for at least matched funding from the projects it supports and to date has committed \$1.1 billion in funding to more than 270 projects. For more information, visit [www.arena.gov.au](http://www.arena.gov.au).

### **About the Carnegie Wave Energy limited**

Carnegie is an Australian, ASX-listed (ASX:CWE) wave energy technology developer. Carnegie is the 100% owner and developer of the CETO Wave Energy Technology intellectual property. Carnegie is focussed on commercial opportunities in key target markets including UK, Europe and remote islands. Carnegie also owns 35% of leading Australian battery/solar microgrid EPC Energy Made Clean with whom Carnegie has a Strategic Alliance agreement focused on delivering mixed renewable microgrid projects to islands and remote and fringe of grid communities.. For more information, visit [carnegiewave.com](http://carnegiewave.com)

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