

ASX Announcement

21st October 2016

Debt Financing Agreement Signed for World First Microgrid Project

Carnegie Wave Energy Limited (ASX: CWE) is pleased to announce that it has signed a \$3.69m Debt Financing Agreement to support the world’s first solar, battery and wave integrated microgrid project.

This Agreement follows the recently announced \$2.5m of funding from the Australian Renewable Energy Agency (ARENA), for the Garden Island Microgrid Project.

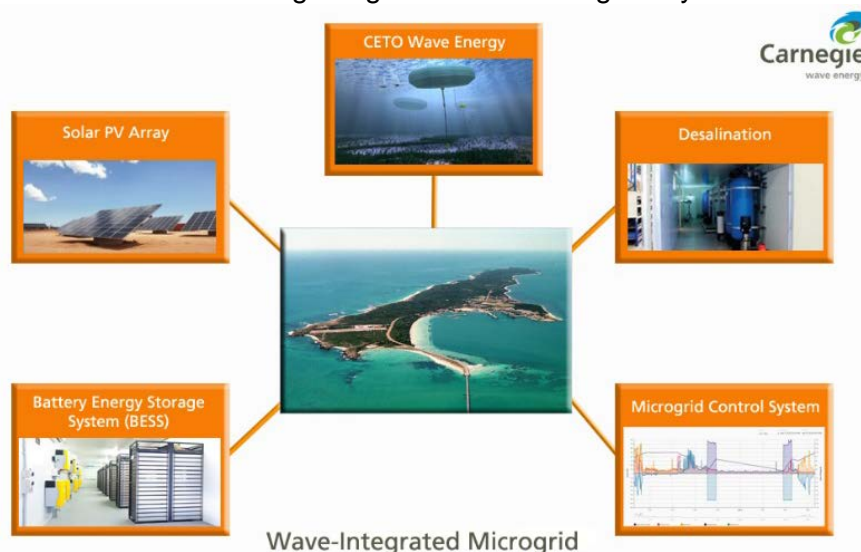
The Project will involve the construction and installation of a 2MW solar PV array, a 2MW/0.5MWh battery energy storage system and control system both to be integrated with Carnegie’s CETO technology and existing desalination plant. The Project will also include augmentation of the grid connection and is supported by Western Power, the network operator who builds, maintains and operates the main electricity network in WA.

Carnegie’s Chief Financial Officer, Aidan Flynn said:

“Not only will the Garden Island Microgrid Project be the first time anywhere in the world that wave energy will be combined with solar and batteries in a microgrid configuration, but it will also be the first time such a project has received debt finance. Signing of the Debt Financing Agreement for a project of this scale is financial validation for us that Carnegie’s microgrid diversification strategy is a clear path to commercialisation.”

“The unique combination of renewable technologies and battery storage in a microgrid demonstrates the model we will roll out to island nations around the world. It is a significant commercial opportunity for Carnegie. The global market in microgrids is expected to grow to US\$40bn by 2020.”

The Project will begin construction before the end of 2016 and be commissioned in the first half of 2017. Designed to operate in “on-grid” mode in parallel with the Western Australian electricity network and in “islanded” mode, isolated from the grid, this Project will act as a template for remote islands and fringe of grid communities globally.



In addition to this \$3.69m debt financing facility, the Project is also supported by \$2.5m funding from ARENA, with the balance of funding to be provided by Carnegie equity.

To enable the signing of the new Debt Finance Agreement, Carnegie's existing \$21m undrawn senior secured debt facility with the Commonwealth Bank of Australia (CBA) has been placed on standby and Carnegie's existing convertible note facility has been cancelled and replaced. The cancelled convertible notes, worth \$3.69 million, were subordinated secured debt with 0% coupon which could be converted to ordinary shares in Carnegie at a conversion price of \$0.042 per share. The new \$3.69m convertible note, is senior secured debt and will be used to finance the construction and commissioning of the \$7.5m Garden Island Microgrid Project. The new convertible notes have an 8% p.a. coupon and can be converted to ordinary shares in Carnegie at anytime by the noteholders at a conversion price of \$0.038 per share. The convertible notes will mature on 17 November 2017 with an option for the noteholders to extend by 12 months on the same terms. The new financing arrangement represents better value for Carnegie during the construction and commissioning period of the Project. The CBA remain supportive of Carnegie and the new financing facility. Once the convertible notes mature or are converted the Project may then be refinanced through the CBA facility which is on standby.

About Carnegie

[Carnegie Wave Energy Limited](#) 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 Engineering Procurement and Construction (EPC) company EMC, with whom Carnegie has a Strategic Alliance agreement, focused on delivering mixed renewable energy microgrid projects to islands and remote and fringe of grid communities.

About CETO

The CETO system is different from other wave energy devices as it operates under water where it is safer from large storms and invisible from the shore.

CETO technology characteristics include:

- Converts ocean wave energy into zero-emission electricity and directly desalinated water.
- Environmentally friendly, has minimal visual impact and attracts marine life.
- Fully-submerged in deep water, away from breaking waves and beachgoers.

Microgrids

A microgrid is a discrete energy system made up of distributed energy sources that are capable of operating independently from the main power grid.

Renewable microgrids that combine multiple renewable energy generation sources (e.g. solar, wind and wave) take advantage of different renewable energy profiles at different times of day, and with different seasonal variation, to reduce the amount of energy storage and diesel generation required.

Renewable microgrids can be used to cut costs, cut greenhouse gas emissions, and in the case of high penetration renewable microgrids, allow communities to be more energy independent and more environmentally sustainable. The precise mix of renewable sources, energy storage, fossil fuel and desalination will depend on the mix of renewable resources available locally and the needs of the customer.

According to Navigant Research's 2013 Report *Market Data: Microgrids*, the global microgrid market is estimated to be worth US\$40 billion by 2020

About 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.

For more information:

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