

ASX Announcement

Friday, 31st July 2015



Report to Shareholders for the Quarter Ended 30th June 2015

ACTIVITIES SUMMARY

During the quarter, Carnegie Wave Energy Limited (ASX: CWE) achieved a very significant milestone with its flagship project, the Perth Wave Energy Project, which has now exceeded 12,000 hours of continuous, cumulative operation. Prior to reaching this operational milestone, Carnegie successfully retrieved the first installed CETO 5 Unit.

Highlights from the quarter include:

- CETO 5 Unit successfully retrieved on first attempt and being readied for redeployment
- Perth Project reaches record breaking 12,000 hours operational milestone
- CETO 6 Garden Island offshore survey works progressing
- Winner of the Clean Energy Council's Innovation Award

1. Perth Wave Energy Project

CETO 5 Unit #1 Successfully Retrieved

The first of the CETO 5 Units installed as part of the Perth Project was successfully retrieved as planned on the first attempt after operating for over 4,000 hours since installation in November 2014. The inclusion of hydraulic "quick connect" technology in the overall unit design allowed for efficient disconnection of the unit from the seabed, followed by the de-ballasting of the Buoyant Actuator, floating up of the Pump offshore and then towing the complete Unit back to the Australian Maritime Complex (AMC) in Henderson, WA.



Unit breaking surface during retrieval (L), Unit on top of water, preparing to be towed back to shore (R)

The success of the retrieval has validated Carnegie's operating and maintenance philosophy, utilising "quick connect" componentry, which is heavily used in the offshore oil and gas industry. A similar approach will be utilised in the CETO 6 product generation.



Retrieved CETO Unit being lifted out of the water for planned inspection at the AMC, Henderson, WA

Preparations are underway at the AMC to redeploy Unit #1 post onshore inspection, strip down and analysis. Some of the works that were undertaken during the strip down phase were replacing seals, performing maintenance on hoses and upgrading instrumentation systems.



CETO 5 Unit #1 post strip down and inspection works at AMC, Henderson, WA

The redeployment of Unit #1 is on track to occur in the coming weeks subject to weather. Just ahead of this, Unit #2 will be retrieved and Unit installed in its place. This will allow Carnegie to test and demonstrate Unit interchangeability which is an important aspect of Carnegie's "hot swap" maintenance strategy whereby any Unit can be swapped for another while the plant continues to operate.

Perth Project Operation and Performance

During the quarter, Carnegie reached an operational milestone, with the Perth Project achieving 12,000 hours of cumulative, continuous operation of the CETO 5 array. This is the longest ever period of continuous operation for any grid connected in-ocean wave energy convertor. Since installation of the first CETO 5 unit in November, 2014, the array has seen a wide range of sea states, including waves of up to 5.7 metres in height.

This operational milestone is not only significant for Carnegie and the Perth Project, but for the wave energy industry as a whole, addressing the industry wide challenges around reliability and survivability. The Perth Project has been specifically designed to demonstrate survivability, maximise operational hours and confirm CETO 5 unit capacity. The operational results to date provide confidence that the performance of the CETO 5 system is meeting expectations. This includes both the offshore units and the balance of plant infrastructure, including the control system.

The consistent winter swells now being experienced and the associated electricity generation are allowing plant operators and the analysis team to run real time optimisation strategies to understand the exact plant settings that maximise power production for specific sea states.

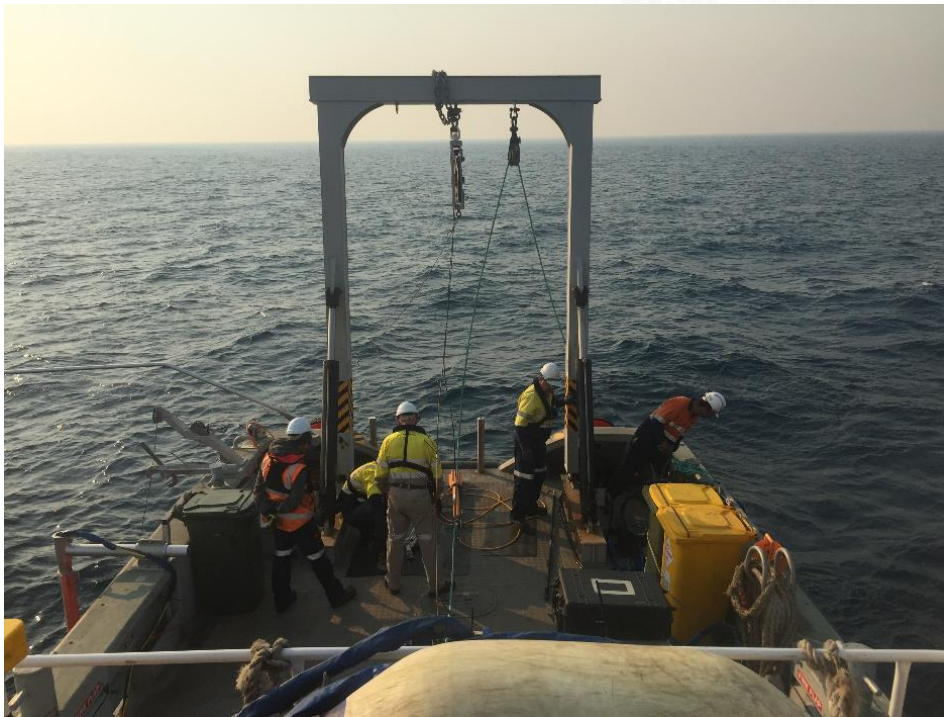
These settings then become part of the system logic to be automatically selected when the same sea state is experienced in the future. This work is critical in informing the design and future operation of the CETO 6 product generation and forms a core part of Carnegie's advanced control system intellectual property. Post-winter, CWE will be able to confirm the capacity of CETO 5 and complete the CETO 6 conceptual design phase. Additionally, the winter swells are providing a further test of survivability and reliability for the CETO system.



Full 3 unit CETO 5 array operating off Garden Island, WA, prior to Unit #1's retrieval

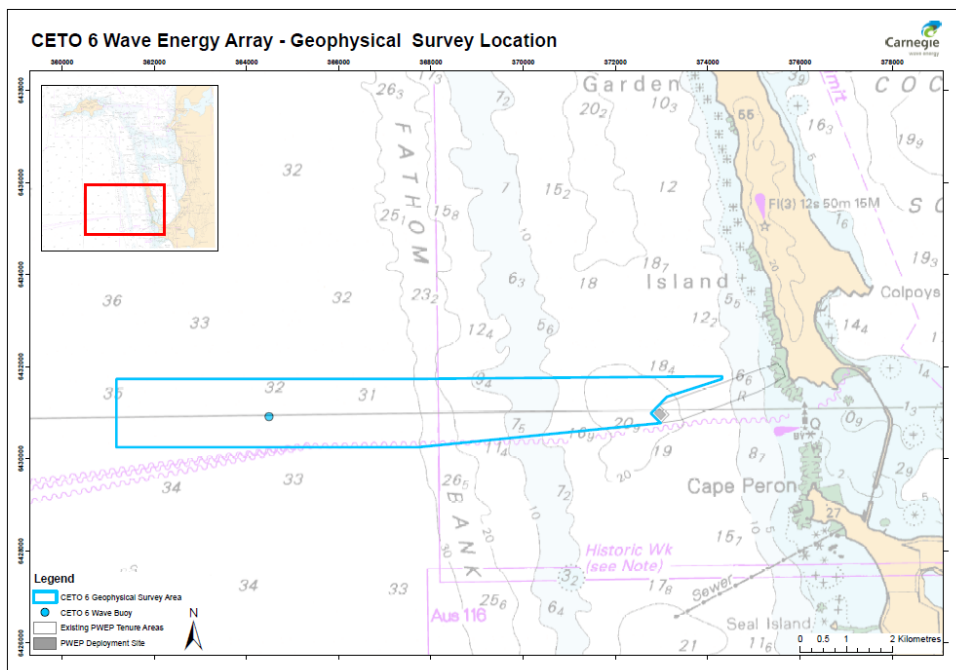
2. CETO 6 Garden Island Developments

The offshore geophysical survey activities for CETO 6 commenced during the quarter, with the findings of the survey due in the coming weeks. The results of these activities influence elements of the CETO 6 Project design currently in progress, including foundation selection, cable route and overall installation methodology.



Survey vessel in proposed CETO 6 project site

In conjunction with Marine GeoSolutions and RPS Energy, the offshore survey is capturing essential information about the geological characteristics at the site, along with detailed bathymetry, using methods such as single and multi-beam echo sounding, and side scan sonar.



CETO 6 Geophysical Survey Location

3. Corporate Activities

Appointment of Chairman

During the quarter, Carnegie was delighted to announce the appointment of existing director Mr. Jeffrey Harding to the role of Chairman of the Board of Directors. Mr. Harding has been on the Carnegie Board of Directors since 2009 as a Non-Executive Director and has had extensive experience in the renewable energy industry including his role as CEO of Pacific Hydro. Carnegie's former Chairman, Mr. Grant Mooney has remained as a Non-Executive Director and will continue in his role of joint Company Secretary.

Milestone Payments

During the quarter, Carnegie received a number of milestone payments from both the WA State and Australian Federal Governments for Project milestone completion.

Early in the quarter, Carnegie received \$1.3 million from the Australian Renewable Energy Agency (ARENA) for completion of the onshore power plant. Carnegie also received \$0.05 million from the WA State Government for the same milestone in the previous quarter, via the Low Emissions Energy Development (LEED) fund. These payments bring the total received for the onshore power generation system to \$1.75 million.

A further \$1.55 million was received from ARENA for the manufacture, completion and deployment of the three CETO 5 units as well as the successful commissioning of the Perth Project, as well as a subsequent milestone payment of \$0.18 million for practical completion of the Perth Project.

Carnegie also received \$0.27 million operational milestone payments from the WA State Government's LEED fund which represents the completion of their funding for the Perth Project. In addition, Carnegie also received its final desalination milestone payment from AusIndustry, meaning that to date, 95% of Perth Project milestone payments have now been received.

Higginsville Gold Royalty Payment

Carnegie also received \$377,412 during the quarter from its historical mining royalty held in the Higginsville Gold Operations. This payment takes the total funds received from the mining royalty to \$3.1 million. The cash payments will be ongoing, dependent on future production and economic viability of future mining activities. This payment requires no expenditure or resources from Carnegie.

Convertible Note Rollover

On the 18 November 2013 Carnegie announced the issue of 4,000 unlisted convertible notes with a face value of \$1,000 each, maturing on 17 November 2015. Carnegie has now extended the maturity date on the remaining 3,690 notes to 17 November 2017. No coupon will be paid on the notes beyond 17 November 2015 and all other terms of the notes remain unchanged.

4. Pipeline

European and UK Activities Update

Carnegie continued to develop its presence in both the European and UK renewable energy industry by presenting at a number of key industry conferences.

CWE UK's CEO, Tim Sawyer presented at the All Energy Conference in Glasgow, Scotland as well as the 2nd World Power Summit in Edinburgh.

Kieran O'Brien, Carnegie's Executive Director of Business Development delivered a presentation at the Thetis – Marine Renewable Energy (MRE) conference in Nantes, France, and was also part of a renewables panel discussion at The Economist's World Ocean Summit.

South American Business Developments

Further to the signing of a Collaboration Agreement with Fundación Chile, Carnegie has been involved in ongoing assessments of wave resources at various sites, the regulatory environment, site identification as well as project development, financing and construction.

Carnegie has also partnered with Fundación Chile in the Valparaiso Regional Government's Innovation Fund of Competiveness (FIC), which focuses on the development of marine energy in the Valparaiso Region, which includes Easter and Robinson Crusoe Islands.

Remote Islands

A number of discussions are ongoing with island nations focused on the application and integration of CETO into their existing power networks. Carnegie would expect to formalise one or more of these discussions in the coming months.

Australian Research Council Grant Awarded

In conjunction with the University of Western Australia, Carnegie was awarded a grant from the Australian Research Council towards a \$460,000 project to investigate more technically and cost efficient anchoring systems for CETO. This project will help to deliver cheaper wave energy projects to industry, as subsea foundations are a significant portion of the CETO cost equation.

Shortlisting for World Sustainability Award

During the quarter, Carnegie was selected for the Global Sustainia 100 shortlist, part of an annual international award that honours outstanding achievement in sustainability performance.

Winner of Clean Energy Council's Innovation Award

Carnegie was selected as the winner amongst a competitive field at the Australian Clean Energy Council's Awards night, in the "Innovation" category for its ground breaking work in the wave energy industry with the world's only currently operating grid connected wave energy project – the Perth Project.



Carnegie's Commercial Manager, Rebecca Cutter, receiving the CEC Innovation Award on behalf of Carnegie from Kane Thornton, Chief Executive of the Clean Energy Council

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.

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:

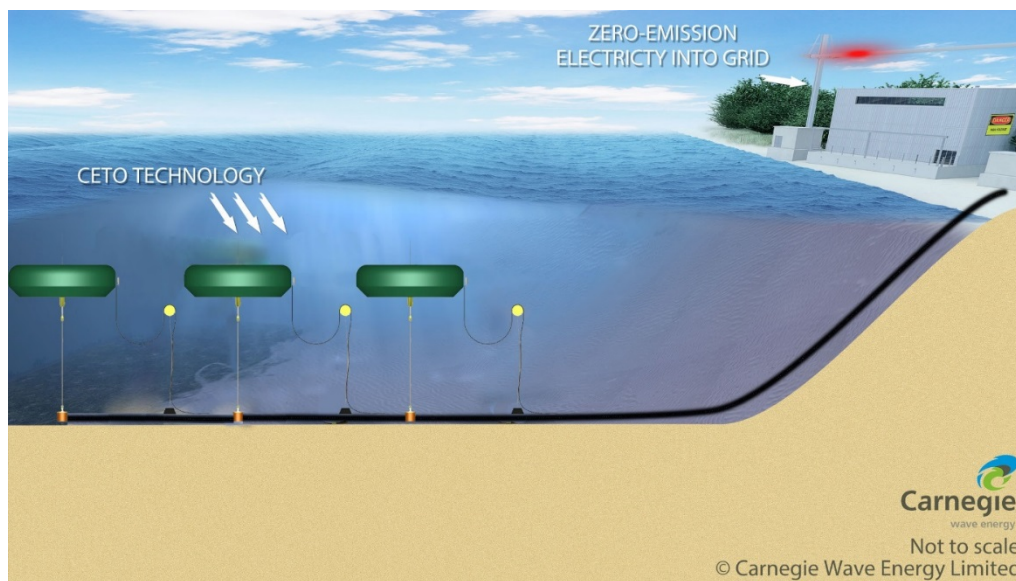
- Converts ocean wave energy into zero-emission electricity and desalinated water.
- Environmentally friendly, has minimal visual impact and attracts marine life.
- Fully-submerged in deep water, away from breaking waves and beachgoers.

Perth Wave Energy Project ('PWEF') Fact File

- PWEF is the world's only operating commercial-scale CETO grid and desalinated water connected wave energy project.
- The Perth Wave Energy Project is supported by \$13.1m funding from the Australian Renewable Energy Agency.
- PWEF is supported by \$7.3 million from the Government of Western Australia's Low Emissions Energy Development (LEED) Fund. This is part of a larger \$10 million LEED grant, awarded to Carnegie by the Western Australian Government, to support the development of the CETO technology from concept through to completion of PWEF.
- The Desalination Pilot is supported by a \$1.27m AusIndustry grant from the Clean Technology Innovation Program.
- Providing clean, renewable energy and potable desalinated water to Australia's largest naval base, HMAS Stirling, on Garden Island in Western Australia.

CETO 6 Project Fact File

The CETO 6 unit has a 1MW (1000kW) power capacity, some four times of the current CETO 5 generation being used in the Perth Project. It will also have superior efficiency, lower capital and maintenance costs than any CETO product generation developed to date. The CETO 6 Project is supported by \$11m in Australian Government grant funding through the Australian Renewable Energy Agency's Emerging Renewables Program and a five year, \$20m loan facility from the Australian Clean Energy Finance Corporation. The clean, renewable energy generated by the Project will be sold to the Australian Dept of Defence at Australia's largest naval base, HMAS Stirling, on Garden Island in Western Australia.



CETO 6 Project Power Schematic

About ARENA

ARENA was established by the Australian Government to make renewable energy technologies more affordable and increase the amount of renewable energy used in Australia. ARENA invests in renewable energy projects, supports research and development activities, boosts job creation and industry development, and increases knowledge about renewable energy. ARENA is currently supporting more than 200 projects and is actively seeking new projects to support.

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