



**European Union**

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## **ASX Announcement**

**14<sup>th</sup> November, 2016**

### **Carnegie Wave Hub Project Launched with UK DEFRA Minister of State and Cornwall Council**

- Launch of the CETO Wave Hub Project supported by the European Regional Development Fund, by the UK Minister of State at the UK Department for Environment, Food and Rural Affairs and Leaders of Cornwall Council
- Further support for wave energy from the Cornwall Council with the acquisition of Wave Hub, supported by £14m of additional funding from the UK Government
- UK Government announcement of revenue support (£315/MWh wave energy CFD)
- European Ocean Energy publishes Ocean Energy Roadmap targeting 10% of Europe's electricity from wave and tidal energy by the year 2050

**Carnegie Wave Energy Limited (ASX: CWE) formally launched its 15MW CETO Wave Hub Project on Friday November 11 with Mr. George Eustice, Minister of State at the UK Department for Environment, Food and Rural Affairs (DEFRA), the Leader and key Councillor's from Cornwall Council and Wave Hub.**

Carnegie announced last week a £9.6m (AUD\$17m) ERDF grant for the first phase of its Wave Hub Project. Phase 1 of the 15MW Project consists of the design, construction, installation and operation of a single 1MW grid-connected CETO 6 wave energy converter device, adapted to local conditions and industrialised for large scale commercial deployment at the purpose built Wave Hub test site in the UK. The Project will commence immediately, with commissioning in 2018, followed by 12 months of operations.

The launch provided the opportunity to brief Minister Eustice on the 15MW project, and the comprehensive offering Cornwall and the UK provides for wave energy. Phase 2, planned for 2020/21, will deliver a subsequent 15MW commercial array at the same site, offering a commercial return on investment.

Cornwall Council also announced this week that it has concluded negotiations with the UK Department for Business, Energy and Industrial Strategy (BEIS) on the transfer of Wave Hub, along with £14 million of funding and the creation of a low carbon Enterprise Zone in the key ports of Hayle and Falmouth during 2017. Combined, these are designed to put Cornwall at the heart of the emerging Marine Renewables sector.

Councillor Julian German, portfolio holder for Economy and Culture said:

“Cornwall is open for business and, as the new owners of Wave Hub, Cornwall Council will be creating the right environment for the sector to grow and flourish”.



[www.carnegiewave.com](http://www.carnegiewave.com)

Suite 5, 4B Mews Road, Fremantle WA 6160  
PO Box 1206, Fremantle WA 6959  
t: +61 8 9335 3993 f: +61 8 9433 5600  
e: [enquiries@carnegiewave.com](mailto:enquiries@carnegiewave.com)  
A.B.N 69 009 237 736



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**From left to right: Stuart Herbert (Wave Hub), Claire Gibson (Managing Director, Wave Hub), Councillor Julian German (portfolio holder for Economy and Culture), Minister George Eustice, Tim Sawyer (CEO, CWE UK), Jack Jorgenson (CWE UK), Councillor John Pollard (Leader of Cornwall Council), Nicola Lloyd (Head of Inward Investment, Invest in Cornwall) and Councillor John Coombe (Cornwall Council, Hayle South) outside the Hayle Marine Renewable Business Park in Cornwall.**

Earlier in the week, Carnegie also attended the annual Ocean Energy Europe Conference in Brussels and Carnegie's Executive Director of Business Development, Kieran O'Brien, presented on the Public Funding Conference Panel. The Ocean Energy Roadmap, produced by the sector at the request of the European Commission, was handed to the European Commissioner for Environment, Fisheries & Maritime Affairs Mr. Karmenu Vella at the conference. The Roadmap sets out a strategy to deliver 10% of Europe's electricity from wave and tidal energy by the year 2050. This includes the need for a €250 million investment package and a €70 million insurance fund to attract investors and offset risk.

Commissioner Vella said:

"Ocean energy is not just good news for our climate. It's also great news for job creation. We are speaking about a potential global market of up to €53 billion a year. Thanks to today's roadmap, we have a convincing path for investors to follow".

On Wednesday 9<sup>th</sup> November, the UK government also proposed a £290m budget for the second allocation round of the Contracts for Difference regime. This includes support for wave energy in the form of a strike price of up to £315/MWh. The Auction round opens in April 2017 and will include projects for delivery in either 2021-22 or 2022-23. Carnegie's 15MW CETO Wave Hub project is proposed for 2021.



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**From left to right: Peter Holland (Invest in Cornwall), Glen Caplin (Cornwall Council), Simon Di Pietro (Co-President, Ocean Energy Europe), Julian German (Cornwall Council), Claire Gibson (Wave Hub), Kieran O'Brien (Executive Director, Carnegie Clean Energy and CWE UK) and Mr. Tim Sawyer (CEO, CWE UK) at the Ocean Energy Europe conference in Brussels.**

### FACT FILE

#### 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, Australia and remote islands. Subject to the approval of its shareholders before 19 December 2016, Carnegie will also become the 100% owner of leading Australian battery/solar microgrid Engineering Procurement and Construction (EPC) company Energy Made Clean, which specialises in the delivery of mixed renewable energy microgrid projects to islands and remote and fringe of grid communities. Through this acquisition, Carnegie will be the world's first company to deliver a combination of wave, solar, wind, storage and desalination into microgrids.

#### **CWE UK**

Carnegie established CETO Wave Energy UK (CWE UK) as a wholly owned subsidiary in 2013. CWE UK has its offices at the Hayle Marine Renewable Business Park in Cornwall, UK. Phase 1 of the CETO Wave Hub Project, focuses on the design, construct, install and operate a single 1 megawatt (MW) grid-connected CETO 6 wave energy converter device, adapted to local conditions and industrialised for large scale commercial deployment at the purpose built, Wave Hub test site in the UK. The £14.7m project is supported by a £9,551,962 grant from the European Regional Development Fund, part of the European Structural and Investment Funds Growth Programme 2014-2020. Stage 2 (planned for 2020/21) will deliver a subsequent 15MW commercial array at the same site, offering a commercial return on investment. The project will commence immediately, with commissioning set for 2018, followed by 12 months of operations.

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## **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.

## **European Regional Development Fund**

The CETO Wave Hub Project is receiving £9,551,962 of funding from the England European Regional Development Fund as part of the European Structural and Investment Funds Growth Programme 2014-2020. The Department for Communities and Local Government is the Managing Authority for European Regional Development Fund. Established by the European Union, the European Regional Development Fund helps local areas stimulate their economic development by investing in projects which will support innovation, businesses, create jobs and local community regenerations. For more information, visit <https://www.gov.uk/european-growth-funding>.



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## **Wave Hub**

Wave Hub is a grid connected wave energy test site in Cornwall, UK, developed to accelerate and support pre-commercial testing of wave energy device arrays. It provides a fully grid-connected and consented wave energy site, split into 4 berths, located approximately 10 nautical miles (16km) off the north coast of Cornwall. In 2014, Carnegie was awarded a wave energy berth at the purpose built Wave Hub facility in Hayle, Cornwall. The berth allows Carnegie to construct a 10-15MW CETO array, connected to the subsea electrical cables already installed and the existing grid connection.

## **For more information:**

Dr Michael Ottaviano  
CEO & Managing Director  
Carnegie Wave Energy Limited  
+61 8 9335 3993  
[enquiries@carnegiewave.com](mailto:enquiries@carnegiewave.com)  
Website: [www.carnegiewave.com](http://www.carnegiewave.com)



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