

Mooring Tensioner for WECs - MoTWEC

Project ID

3.20.006

Research Program

RP3 Offshore Renewable Energy Systems (ORES) Program

Project Leader

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Summary

The efficient and cost-effective conversion of wave energy into electrical energy has remained an unsolved technological challenge. This project will develop, proof test and demonstrate a novel energy storage element, the Mooring Tensioner, enabling the use of rotary electrical generators for Wave Energy Converters (WEC).

The Mooring Tensioner will be delivered in high performance, light weight and durable fibre reinforced composites, allowing easy integration to the space constrained WEC environment. The delivered efficiency advantages will significantly enhance the competitiveness of WEC technologies, thereby supporting the supply of low-cost energy to the onshore grid, offshore platforms and aquaculture sites.

Objectives

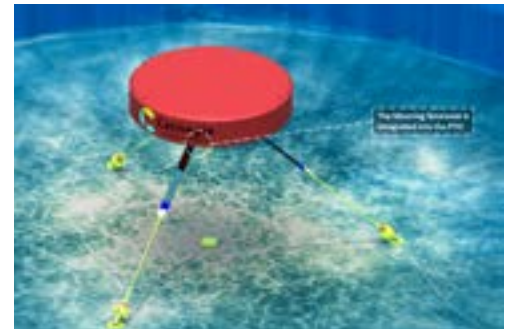
The overall project objective is to deliver a reliable, cost-effective Mooring Tensioner design, suitably verified for application to real WEC systems. It is expected that successful delivery of the Mooring Tensioner design and testing will lead to a step-change in WEC LCoE supporting lower cost of energy supply to the land-based electricity grid, offshore platforms and aquaculture sites.

Duration

36 months

Participants

- Advanced Composite Structures Australia Pty Ltd
- Carnegie Clean Energy Limited
- Climate-KIC Australia Ltd
- The University of Queensland



(Image courtesy of Carnegie Clean Energy Limited)

OUR VISION

To enhance the development of Australia's sustainable blue economy through the delivery of world-class, industry focussed research into integrated seafood and renewable energy production systems.

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