

Biography & Rationale for Funding Application



Dr Rachel Nicholls-Lee:

- PhD, University of Southampton, 2011
- Senior Naval Architect, Mojo Maritime, 2012-2015
- Director, Whiskerstay, 2015-2020
- Research Fellow, University of Exeter, 2020-present

A Novel, Robust, Near-shore, Wave Energy Converter for Remote Communities

- Novel, simple and robust WEC concept
- No analysis/testing done
- Require initial data to assess feasibility of device



Overview of Project

- Wave energy development struggling with survivability vs CAPEX/OPEX - reduction in LCOE needed
- Simple, robust devices required
- Novel, robust, near-shore, WEC concept introduced



- Off-the-shelf parts
- Facilitates maintenance
- Lower grid connection costs
- Ideal for remote communities
- Proof of concept required



Scope of Work & Key Objectives

Aim: test the feasibility (experimentally & numerically) of the new, robust, near shore WEC

Objectives:

- Design and build test setup in flume, inc. wavemaker, beach and WEC model
- Test the device and compare results to initial numerical model
- Assess feasibility of device in representative location

