ASX Announcement

October 27, 2016

Carnegie Presentation at ASX Spotlight Series in Singapore

Please find attached presentation to be delivered today by Carnegie's Chief Financial Officer Aidan Flynn, at the ASX Spotlight Series in Singapore. The presentation outlines the recent 100% acquisition of Energy Made Clean as well as progress on Carnegie's microgrid projects and market potential and the CETO 6 technology.

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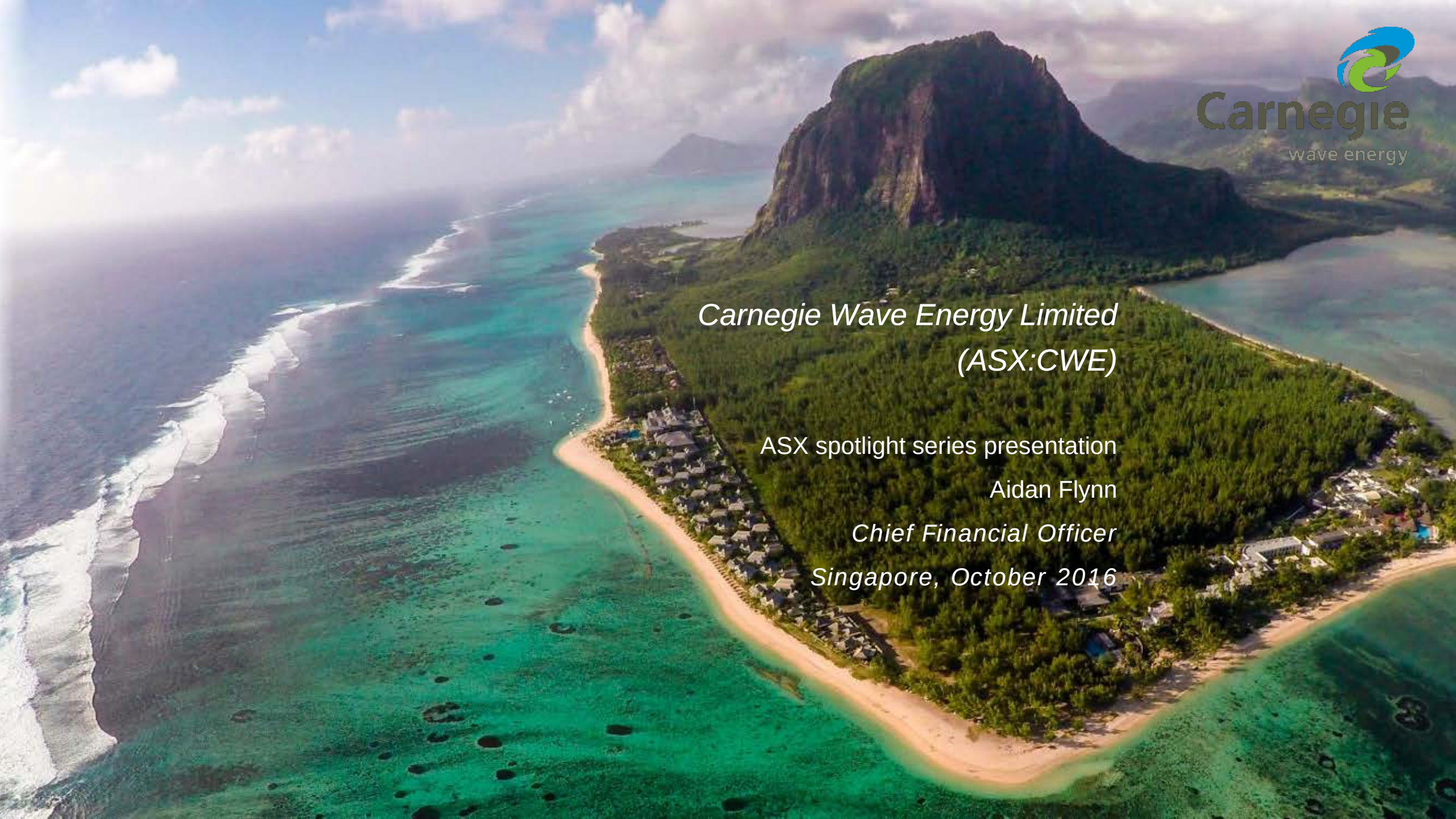

Carnegie Wave Energy Limited (ASX:CWE)

ASX spotlight series presentation

Aidan Flynn

Chief Financial Officer

Singapore, October 2016

Disclaimer

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Energy Made Clean Acquisition – announced October 2016

- In October 2016, Carnegie announced intention to move to 100% ownership of solar/battery microgrid developer Energy Made Clean (EMC).
- Creates only ASX-listed company with dedicated renewable microgrid capability.
- Ability to design, develop, finance, construct, operate and maintain microgrids.
- Follows Carnegie's 35% investment in EMC in March 2016.
- Consideration for remaining 65% is $13m with 80% CWE shares and 20% cash
- EMC FY16 revenues of $16m. Cash consideration to be paid in 2 tranches tied to FY17 and FY18 revenue targets of $20m and $30m respectively.
- Subject to CWE shareholder EGM, to be held within 60 days of announcement.
- Acquisition includes:
  - 50 staff and offices, workshop, warehouse, test facility and equipment fleet based in Perth.
  - Licensed Electricity Retailer (SWIS)
  - 50MW solar project development pipeline in Western Australia
- Partnerships with;
  - NZ utility Infratec to expand state-of-the-art Solar/Battery/Diesel Solutions to NZ and the Pacific Islands
  - North Western Australian Indigenous Engineering Services provider Eastern Guruma

Remote monitored and controlled 100 kW PV /110 kVA Diesel/ 64 kWh battery project in outback Australia


1.1MWh Battery Energy Storage System for Synergy Alkimos Project

WHAT WE DO

Off-grid

- Grid Utilities
- Remote Utilities
- Grid Defection
- Remote Power

Solar Pumping

- Water Corp
- De-watering
- Pivots
- Agriculture

Commercial PV

- PPA
- EPC
- Nation Wide
- 30kW-1MW

Utility Scale

- BOO
- Large EPC
- BESS
- MW PV

O&M

- On-going
- Monitoring
- Availability
- Utility Grade

WHAT CAN MICROGRIDS POWER?

Microgrids can bring remote operations safe, reliable, and cost effective power across all applications and industries.

- Defence Bases
- Agricultural Sector
- Remote Communities
- Remote Islands
- Resource Sector
- Astronomy
- Cattle Stations
- Eco-Tourism
- Roadhouses
- Water Pumping

Energy Made Clean – POD range

STANDARDISED PACKAGE

- Power On Demand (POD) range
- 5ft, 10ft, 20ft, 40ft
- Pre-commissioned stand-alone power systems
- Configurable power/energy ratio
- Plug and play installation
- Fully remote monitored and managed.

EMC Case Study 1: Meta Maya Project (Grid Defection)

EMC 20 ft. POD unit

- Pilbara Meta Maya Aboriginal Corporation in Pilbara, Western Australia
- Train local Aboriginal communities to O&M the hybrid system and roll out to the remote towns currently running on diesel
- Peak Load @ 70kW, night time load approx. 7kW
- 100 kW Solar PV (carport mounted partly CAT-D wind region)
- 110 kVA Diesel Generator
- Pre-assembled and pre-commissioned 20ft POD, 64 kWh Sony Lithium Iron Phosphate
- Fully remote monitored and controlled (National Instruments control architecture)
- >35kAUD savings / year with a potential 7 year payback since 2015 operations.

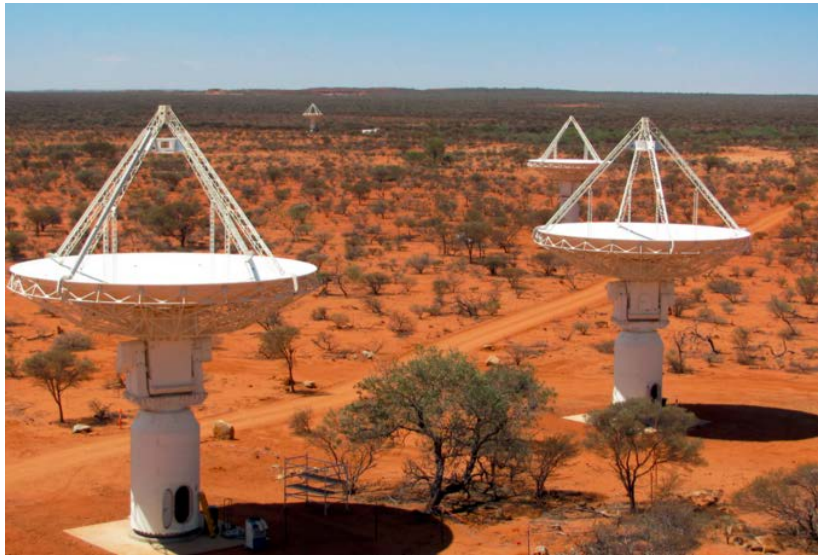
EMC Solar Panels

EMC Case Study 2: Thevenard Island Project (Tourism)

EMC CEO John Davidson (left) with Western Australia's Premier Colin Barnett (right) inside a POD Unit

- Project for Mackerel Island Corporation
- Attractive island location, offshore from Onslow, Western Australia
- Project aimed to provide fuel independence and energy savings.
- Corrosive location and high wind (CAT-D) region
- Peak load @ 240kW & annual load usage > 1GWh
- 614 kWh Sony Lithium Iron Phosphate (2 x 40ft containers)
- 324 kW Solar PV (ground mount screwpile)
- 440 kVA Diesel Generation (4 x 110kVA)
- Real time monitoring and control

EMC Case Study 3: Square Kilometre Array (Utility Solar)



- Project for CSIRO, located 350km northeast of Geraldton, Western Australia
- Designed to produce world's most sophisticated antenna system to have the most sophisticated solar/storage/diesel power system in the world.
- 1.6MWp solar facility in combination with an N+1 IGBT based battery system being capable of diesel off functionality.
- EMC tasked to perform structural design for solar installation and fully pre-commissioned containers from Perth.
- 1.25 MVA microgrid-connected at 6.6 kV, ABB PCS100 Inverter 1.25 MVA
- 2.6 MWh Samsung SDI Lithium batteries (68Ah)
- PV central inverters delivered in EMI shielded containers manufactured by EMC in Perth
- Containerised installation, Fire Suppression / Fire Rated, Centralised HVAC
- EMC control system (National Instruments)
- Delivery by end 2016

EMC Case Study 4: Alkimos Project (Utility Battery)

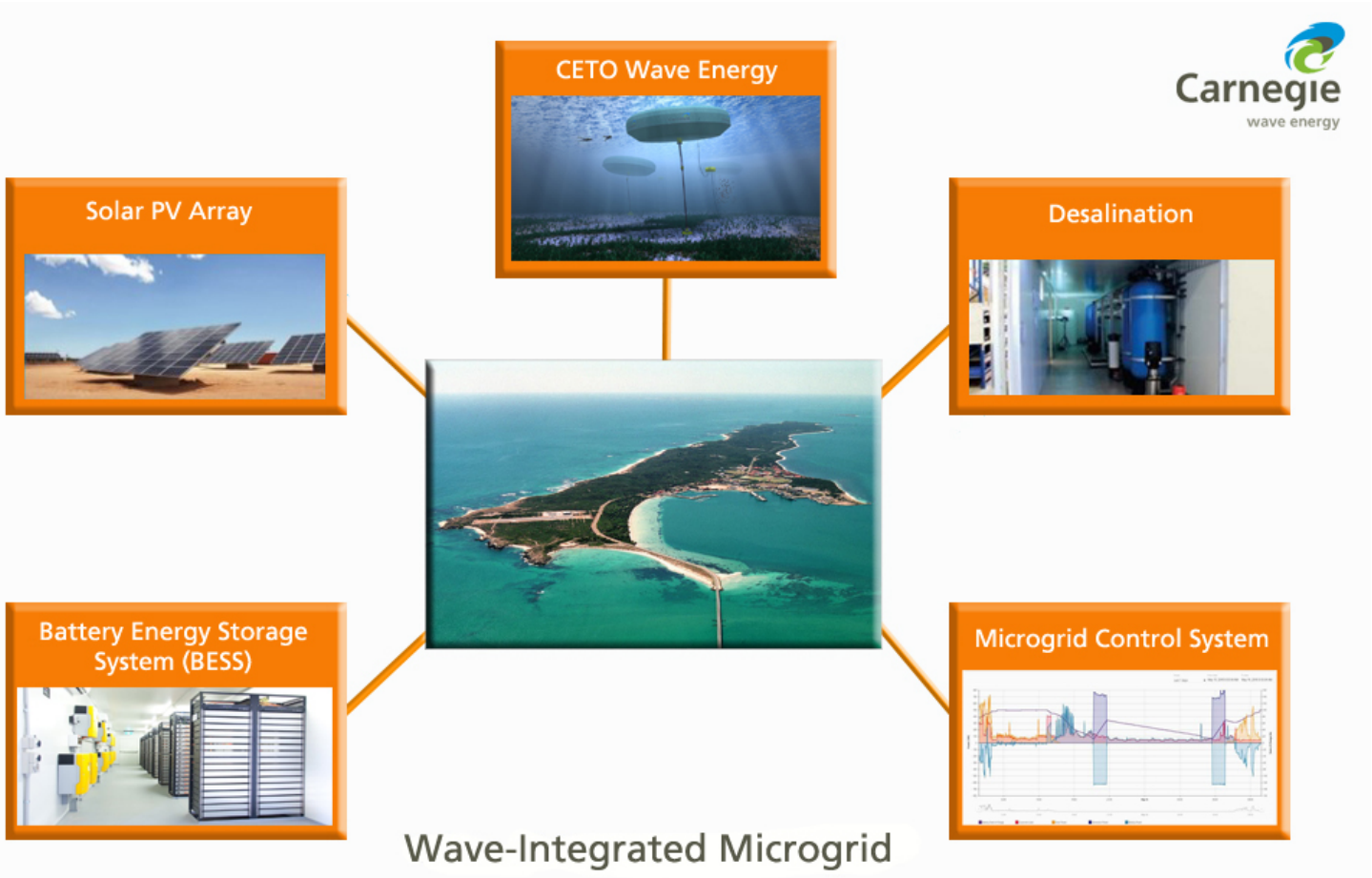
Australia's Treasurer and Minister for Energy Dr. Mike Nahan (left) with Australia's former Minister for the Environment Greg Hunt (right) inside a POD Unit at the Alkimos Beach Project

- On-grid Utility-Scale Battery Project
- First of its kind on a community scale in Australia
- Located in Alkimos Beach, Perth, Western Australia
- 1.1MWh energy storage system
- Demonstration project for Synergy (Western Australian Government-owned Gentailer)
- Offers residents:
  - Virtual energy storage rebates for solar PV
  - Solar hot water system and other energy efficient appliances
  - In-home energy display unit monitoring generation and usage
  - Education program to help residents maximise their potential to save money and better manage energy usage
- ARENA (Australian Government) $3.3m grant

EMC Case Study 5: SPS (Replacing poles and wires)

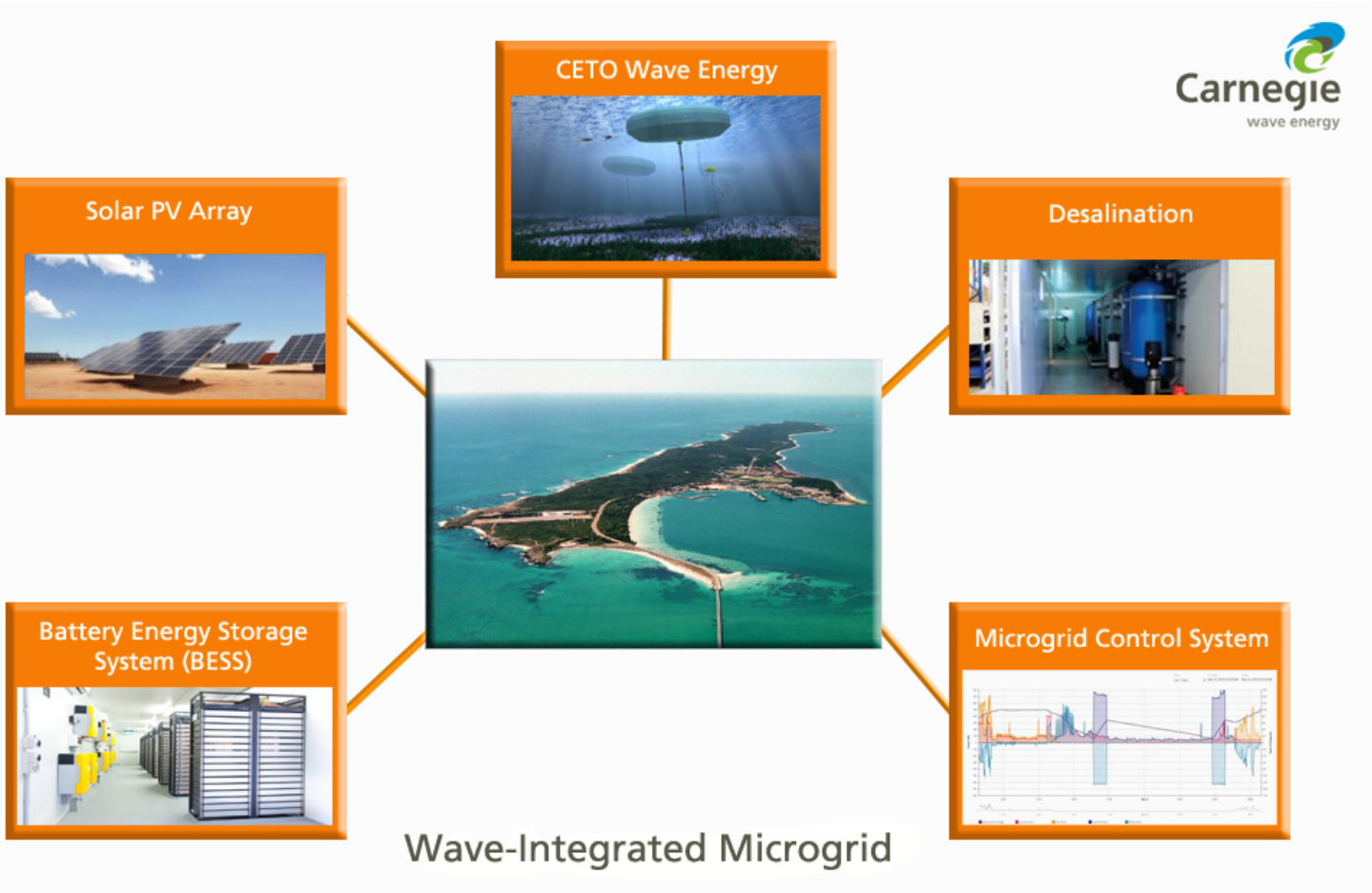
- SPS: Standalone Power Systems
- Fringe of Grid Utility Installations for Horizon Power and Western Power
- Power Utilities opting for a more cost effective and reliable alternative to replacing poles and wires damaged in bushfires
- South West of WA (Esperance and Ravensthorpe)
- Systems between 10-80 kWh Lithium Batteries
- Systems between 8-20 kW Solar PV ground mounted
- Fully remote monitored and maintained by EMC

Wave Integrated Microgrids



- Combines multiple energy generation sources with sophisticated control systems and energy storage.
- Carnegie is the only company globally able to offer a wave integrated microgrid solution. Wave energy's high predictability is particularly valuable in smaller grids as the level of renewable energy penetration increases.
- A mix of renewable generation technologies e.g. solar, wind and wave, takes advantage of different times of day or seasonal variation, thus reducing the amount of energy storage and diesel generation required.
- Desalination increases the options to integrate higher levels of renewables by using water as a form of energy storage and allows direct use (local) of renewable energy to provide desalinated water.

Microgrids – what are they worth?



- Navigant research suggests global deployment in microgrids had generated an estimated US$4.3bn per annum in 2013, expected to grow to **US$40bn per annum by 2020**.
- EY study based on 20 countries identified microgrids could provide anywhere between US$64bn and US$171bn in electricity cost savings for commercial companies by 2020.
- Through the acquisition of Energy Made Clean, Carnegie Wave Energy will be the only company globally able to off the full option of design, development, finance, construction, operation and maintenance of combinations of wave, solar, battery and desalination microgrids.

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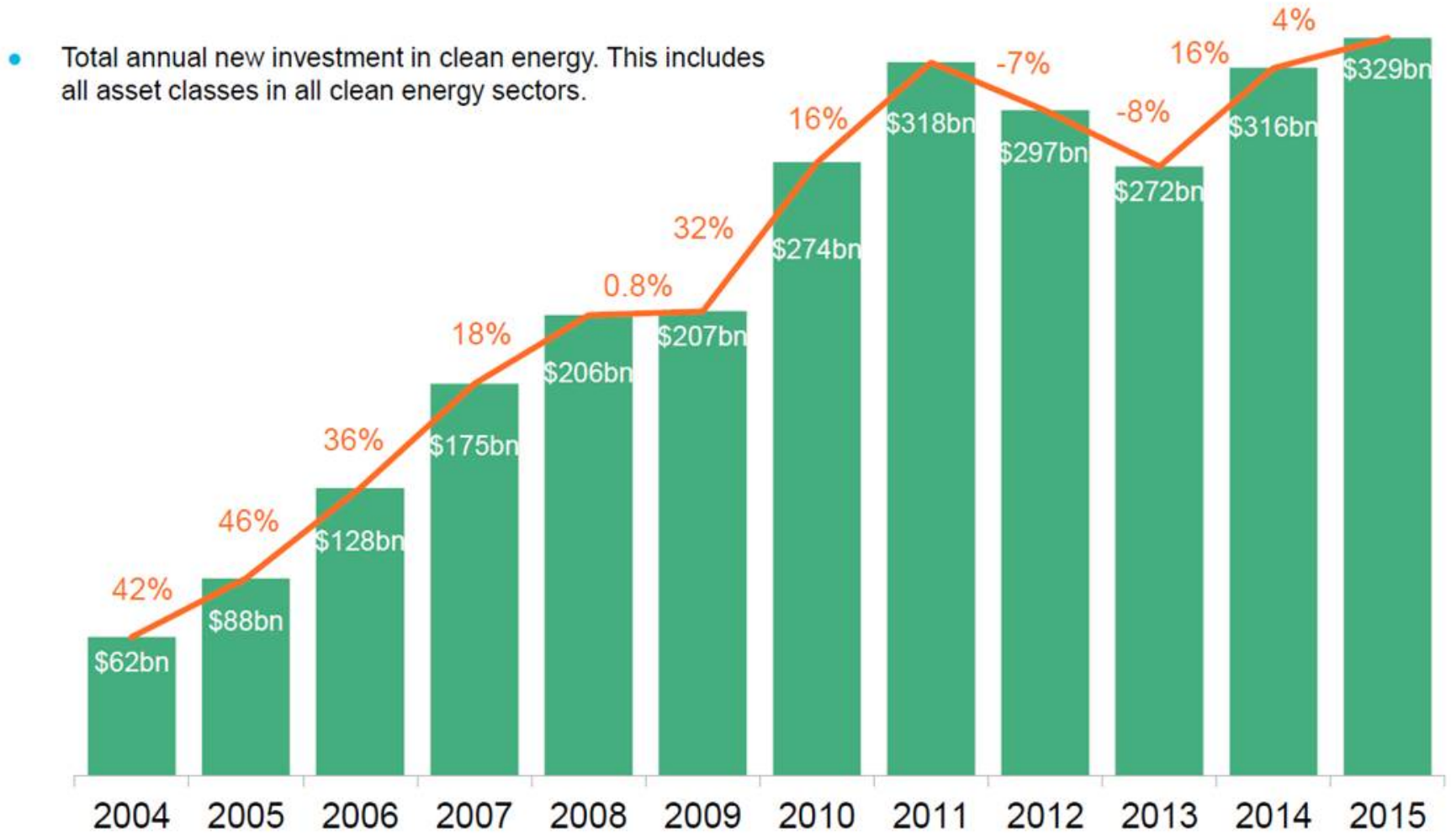
Global Trends in Renewable Energy Investment



Note: Total values include estimates for undisclosed deals. Includes corporate and government R&D, and spending for digital energy and energy storage projects (not reported in quarterly statistics).

Source: Bloomberg New Energy Finance

"Globally, renewable sources contribute **one** of every **two** megawatts of new power being installed.

"By 2030 the share of electricity generated by **renewable energy** will reach 50 per cent."

- Ernst and Young, 2015

EY Building a better working world

CWE Investment Highlights

Wave highlights

- Undisputed **leader** in wave energy technology - **only company** to have operated a grid-connected wave energy project over four seasons, with thousands of in-ocean operating hours.
- Owner and developer of world leading “CETO” wave energy technology - over $120 million spent to date on CETO over six prototype cycles.

Microgrid highlights

- **Diversified** into microgrids through the 100% acquisition of Energy Made Clean, a leading Australian engineering company focused on clean energy microgrid EPC and O&M.
- Strengthens dual international market focus: European/UK dedicated wave sites (grants, FITs, good wave resource and supply chain); and Island/offgrid market (high diesel tariffs, lack of energy security, wave-integrated and non-wave renewable energy/BESS microgrids).

Corporate highlights

- Well **capitalised**: $11 million cash, $15 million in undrawn Government grants, $20m standby debt financing plus $3.69m convertible note.
- Combined team of ca. 90 focused on wave technology and microgrid project development, delivery and O&M.
- Combined CWE and EMC revenues of AU$18 million in FY16 (AU$7 million in FY15), reflecting significant growth of microgrid business.

Carnegie Board of Directors

L-R: Kieran O'Brien (ex ESB), Mike Fitzpatrick (ex Hastings), John Leggate (ex BP), Jeffrey Harding (Chairman, ex Pacific Hydro), Michael Ottaviano (MD & CEO), Grant Mooney (NED, Joint Company Secretary).

Carnegie: A Global Leader in Wave Energy Technology

"Of the eight leading wave companies four have gone bankrupt, one was folded by its owner, one has scaled back its activities drastically, one has had serious setbacks and **one (Carnegie Wave Energy) has made considerable progress with its technology**."

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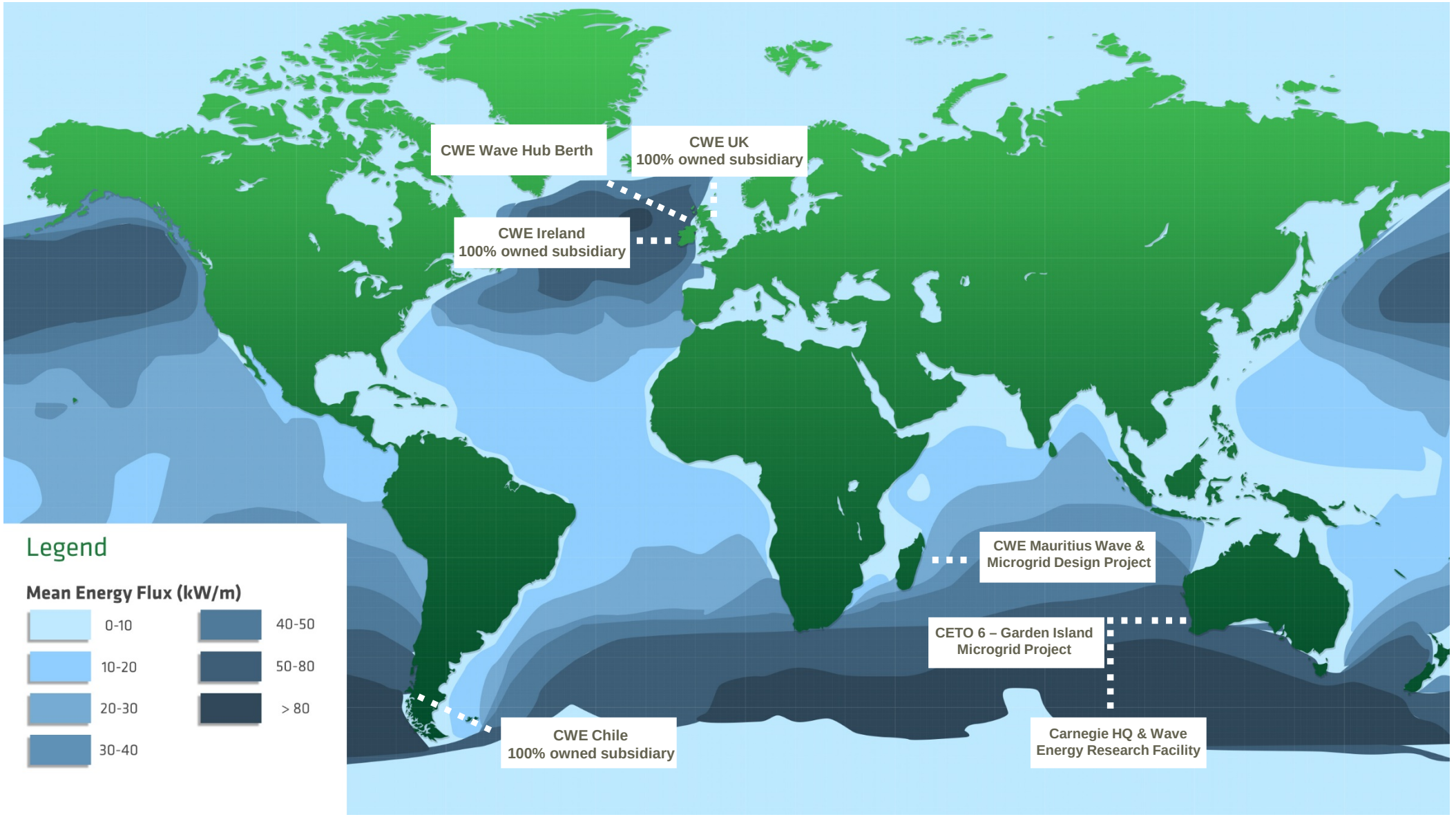
Bloomberg New Energy Finance, 2016

Bloomberg NEW ENERGY FINANCE

Global Resource and Reach



High Value Partnerships

Carnegie wave energy

ARENA

Australian Government
Australian Renewable Energy Agency

WATER CORPORATION

MRC Mauritius Research Council

GOVERNMENT OF WESTERN AUSTRALIA

Australian Government
Department of Defence

AusIndustry
Building Business, Powering Productivity

CEFC
CLEAN ENERGY FINANCE CORPORATION

wave energy SCOTLAND

Wave Hub

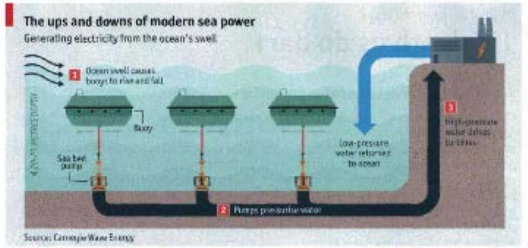
EDF energies nouvelles

westernpower

seai SUSTAINABLE ENERGY AUTHORITY OF IRELAND

Industry Recognition & Global Coverage

The Economist



Renewable energy

Looks swell

MELBOURNE

A new project off the coast of Australia may make wave power a reality

NO LAND stands between Antarctica and Australia's west coast—just a vast ocean, rippled and rocked by the Roaring Forties. For centuries these westerlies, which blow between latitudes 40° S and 50° S, powered ships sailing from Europe to

proaching wave, to avoid getting smashed. The same applies to buoys.

Even below the surface, though, the swell is enough to generate power. Each buoy's rising and falling drives, as the dia-

The New York Times

ENERGY & ENVIRONMENT

Catching Waves and Turning Them Into Electricity

By AMY YEE APRIL 22, 2015

MELBOURNE, Australia — Off the coast of Western Australia, three big buoys floating beneath the ocean's surface look like giant jellyfish tethered to the seafloor. The steel machines, 36 feet wide, are buffeted by the powerful waves of the Indian Ocean. By harnessing the constant motion of the waves, the buoys generate about 5 percent of the electricity used at a nearby military base on Garden Island.

BloombergView

ENVIRONMENT

Sea Power Can Eclipse Solar

MAR 19, 2015 1:20 PM EDT

BRW. 2015 most INNOVATIVE companies

Top 50 Most Innovative Companies in Australia, 2016

THE AUSTRALIAN INNOVATION CHALLENGE

The Australian Innovation Challenge, Finalist, Minerals & Energy, 2016

SUSTAINIA

Innovation Award Winner, 2015

Clean Energy Council

Top 100 Global Sustainable Solutions, 2015

BANKSIA SUSTAINABILITY AWARDS 2015

CATEGORY FINALIST

Banksia Sustainability Awards, Innovation Category Finalist, 2015

Our Proven Capability

CETO 5 - The Perth Wave Energy Project

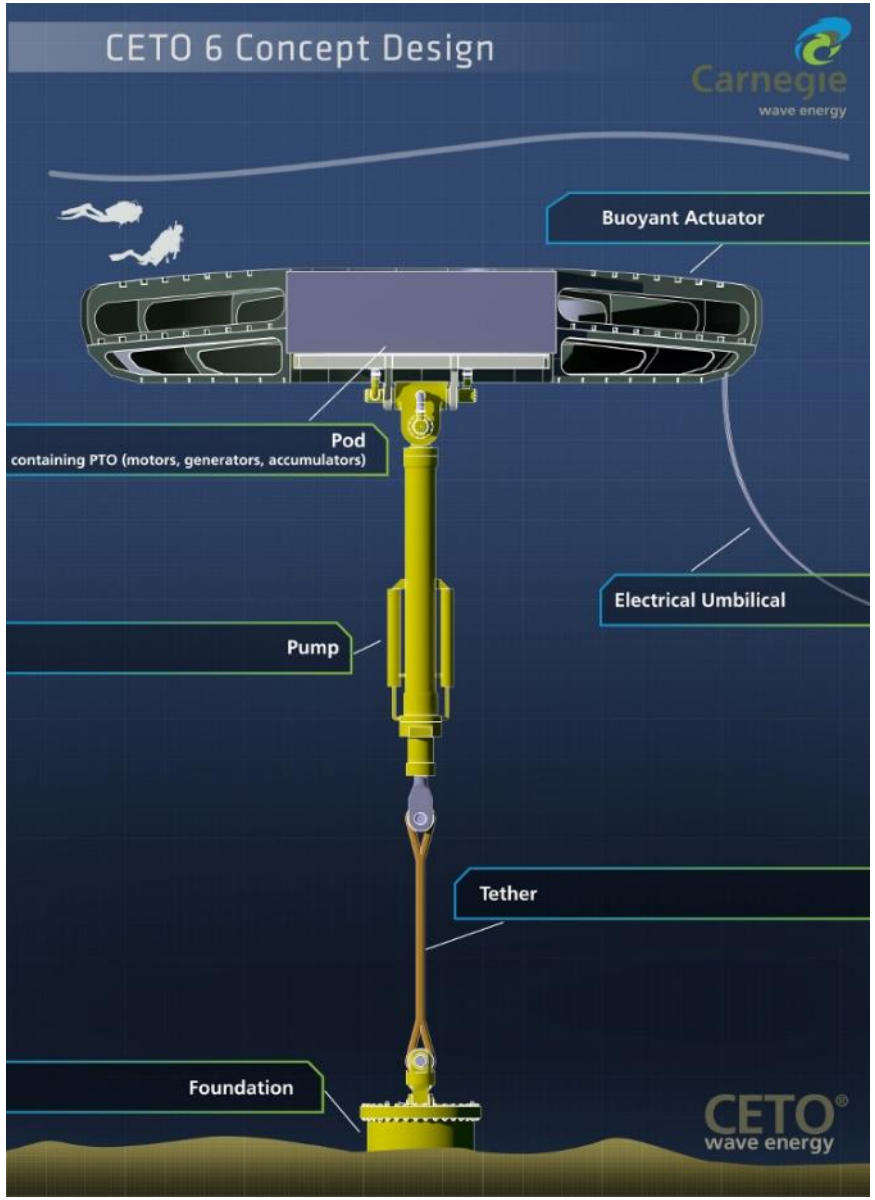
The Perth Wave Energy Project – CETO 5

- Largest capacity CETO unit developed to date.
- First proven demonstration of a complete grid-connected CETO system anywhere in the world.
- Only wave project to consist of three units operating together in an array.
- Only wave project to project to produce both power and freshwater.
- Operated across 14,000 cumulative hours spanning four seasons.
- Verified CETO technology has minimal environmental impact.
- Measured CETO 5 results confirm modelled forecasts.
- Measured results confirm CETO 6 forecasts.

The Next Generation

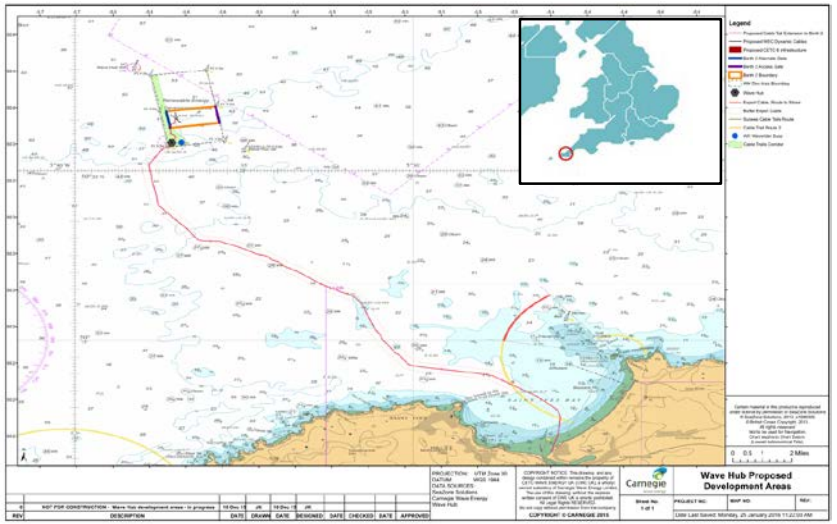
CETO 6 – The commercialisation game-changer

CETO 6 – Commercial Product Platform



- Development based on:
  - CETO 5's in-ocean operational hours and data analysis.
  - CETO 6 wave tank testing at FloWave, Edinburgh.
  - Internal modelling and design development.
  - Engagement with UK/EU and Australian supply chain.
- Approx. four times the output of CETO 5.
- Power generation inside the buoyant actuator allows more advanced control capability.
- Rapid installation and retrieval (no offshore heavy lifts).
- Electrical export cable delivers power onshore which avoids hydraulic transmission losses.
- Tidal range compensation.
- Nearshore and more distant to shore wave sites suitable.

CETO 6 - Garden Island Project



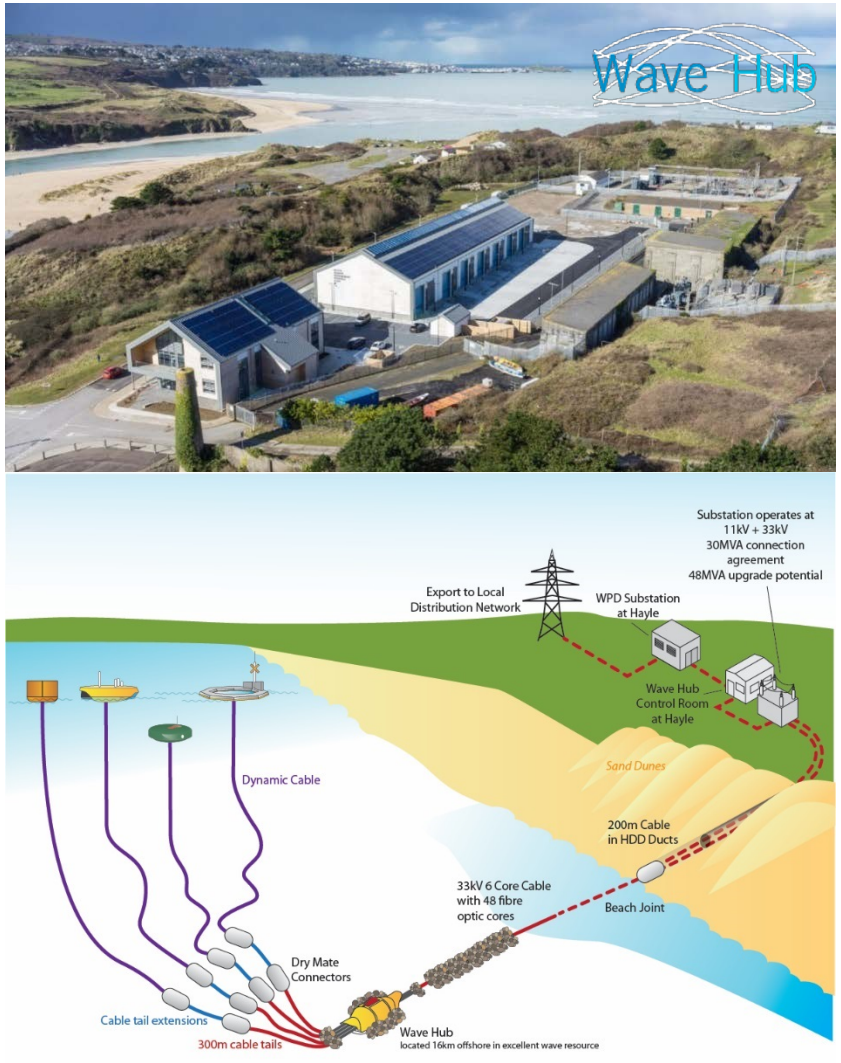
Garden Island CETO 6 Project Maps

- Garden Island, Western Australia
  - CETO 6 demonstration project
  - Funded by CWE, ~$20m debt finance and $11m ARENA grant
  - Commissioning 2017
  - Offtake to Australian Department of Defence

Australian Government
Department of Defence

ARENA
Australian Government
Australian Renewable Energy Agency

CETO 6 – Wave Hub Project, United Kingdom

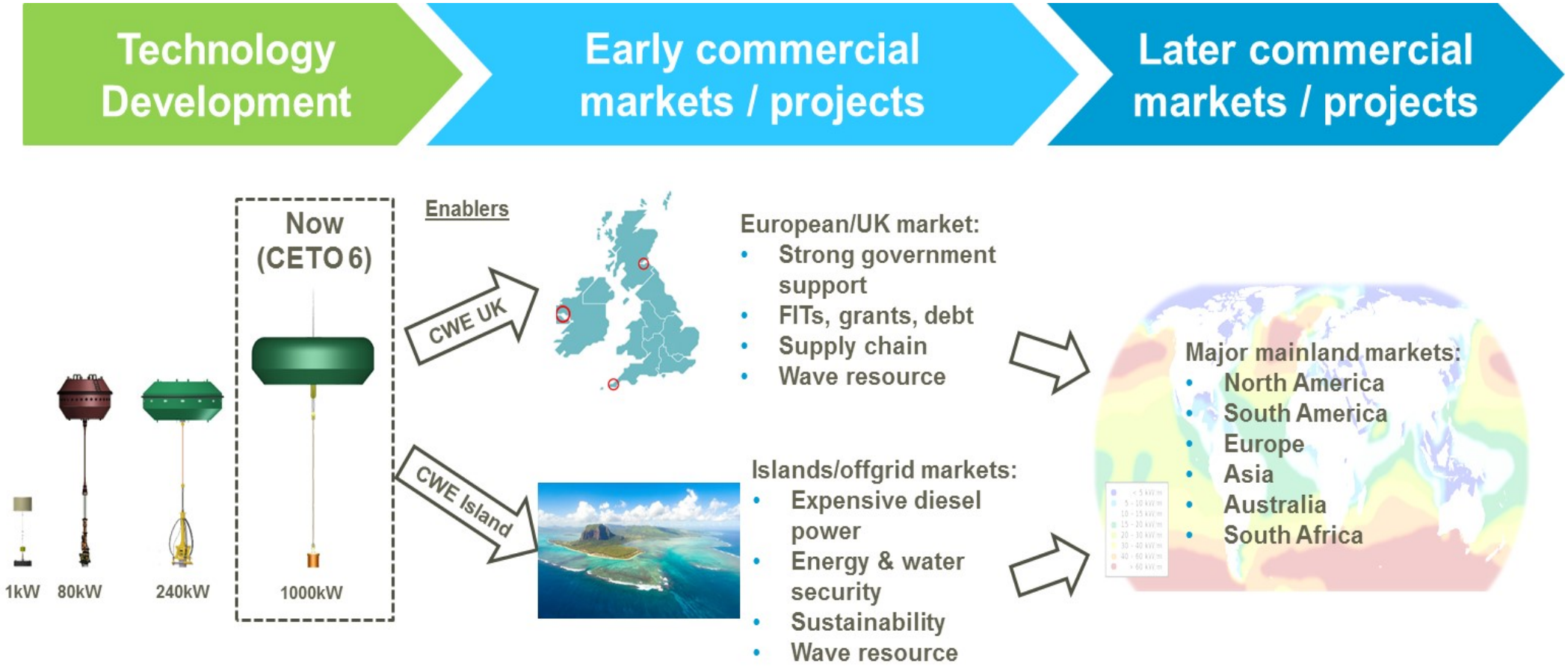


Wave Hub, Cornwall, UK
(Images supplied by the Cornwall Council)

- Awarded 30MW capacity wave energy birth at the purpose built Wave Hub test site in the UK in 2014- upgradeable to 48MW
- Project to be operated by fully owned subsidiary CETO Wave Energy UK (CWE UK)
- 2 Stage Project:
  - **Stage 1**- Will deploy a single 1MW CETO 6 unit at Wave Hub
  - **Stage 2**- Build out to a 10-15MW commercial scale Project at the same site in 2020
- Stage 1 commissioning set for 2018
- Stage 2 bridges the gap between technology readiness and commercialisation, **offering commercial return on investment**
- Stage 1 awaiting assessment of Govt funding

Commercialisation Strategy

Commercialisation of CETO – UK/EU and Islands



Commercialisation via two key initial markets:

- UK/EU: taking advantage of sites, funding, tariffs and supply chain.
- Islands: taking advantage of high power tariffs, competitive advantage of wave (consistency and footprint).

Why the Island Power Market?

- Island and off-grid markets typically reliant on a high proportion of electricity generated using imported fossil fuel, which is expensive, with high emissions, non-secure, with environmental spill risk etc.
- Many islands dependent on tourism market, which is energy intensive, further exacerbating energy issues.
- All island **states spend more than USD$42 million each day** on more than 900,000 barrels of oil, assuming a price of USD47 per barrel (Garcia and Meisen).
- Therefore looking to move to high penetration renewables (clean, secure, sustainable) to exploit RE resources.
- Climate change / emissions considerations – many islands and remote communities on the front line of climate change.
- Increasing government and political support from EU, DFAT, regional development funds, and nation state appetite for increasing renewable energy penetration.
- Ideal wave market but CETO not yet island-ready and islands not yet CETO-ready.

Size of the Island Power Market?

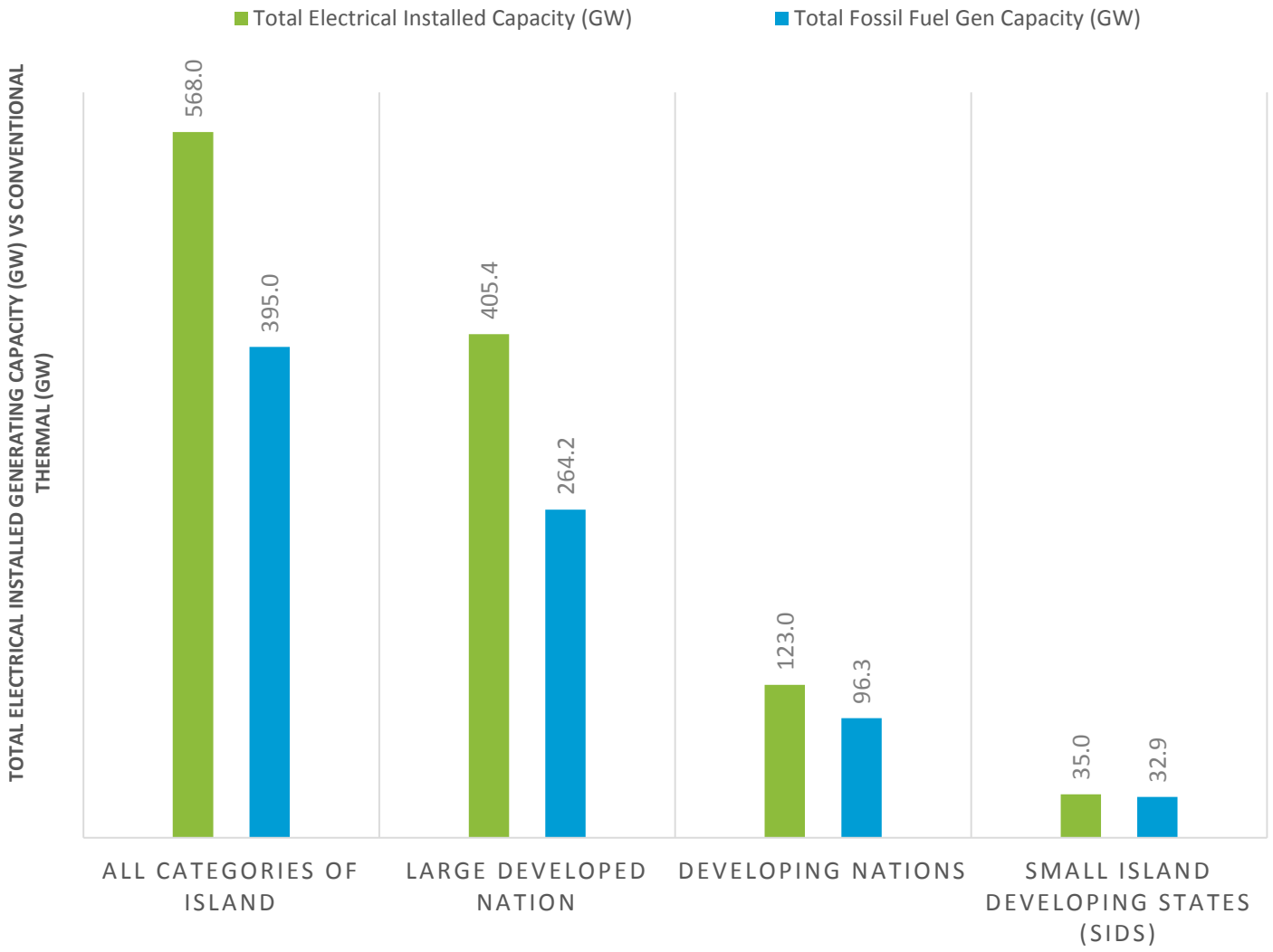
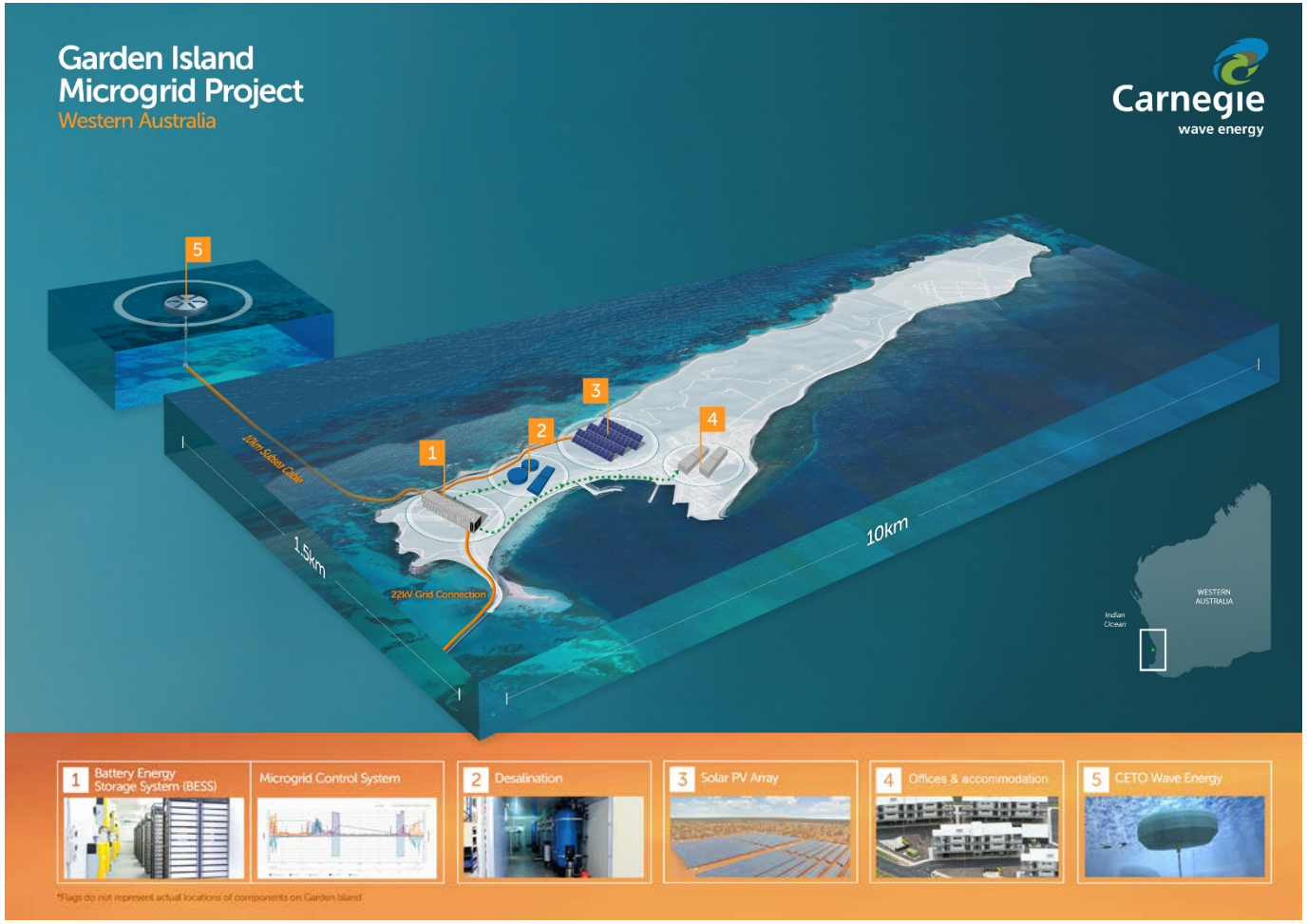


Chart based upon analysis of data taken from a range of publicly available information, total population is not a complete global representation due to lack of available of data.

- At least **400,000 MW** of existing thermal installed capacity that could be replaced with renewable energy and with energy consumption growing in developing nations growing at ~ 8% p.a.
- About 10 per cent of this or **40,000 MW** has a wave resource in excess of **30kW/m**.
- These islands are not yet ready for a wave system – require an *integrated & demonstrated* RE solution.
- Microgrid solutions can be delivered now and made "CETO compatible" so CETO can be "retrofitted" once ready into the **40,000 MW** market place.
- And an effective non-wave, microgrid solution opens up the remaining **360,000 MW** (non-wave) market not currently available to CWE.
- Many islands, e.g. Mauritius and Seychelles, have RE targets ranging from 15% to 100% and need technical and commercial solutions to now deliver on targets.

First CETO 6 Microgrid Project - Garden Island



- Garden Island Microgrid (GIMG) will be the **world's first** wave integrated renewable microgrid project.
- GIMG will integrate:
  - Planned CETO 6 Project.
  - Existing infrastructure.
  - Large scale solar PV farm.
  - Battery storage and control systems.
- Partly funded by AUD $2.5m grant from Australian Renewable Energy Agency (ARENA)
- Partly funded by $3.7m Debt Financing Agreement
- Partnering Western Power, who provide grid and network expertise and support.
- Construction to start in late 2016.

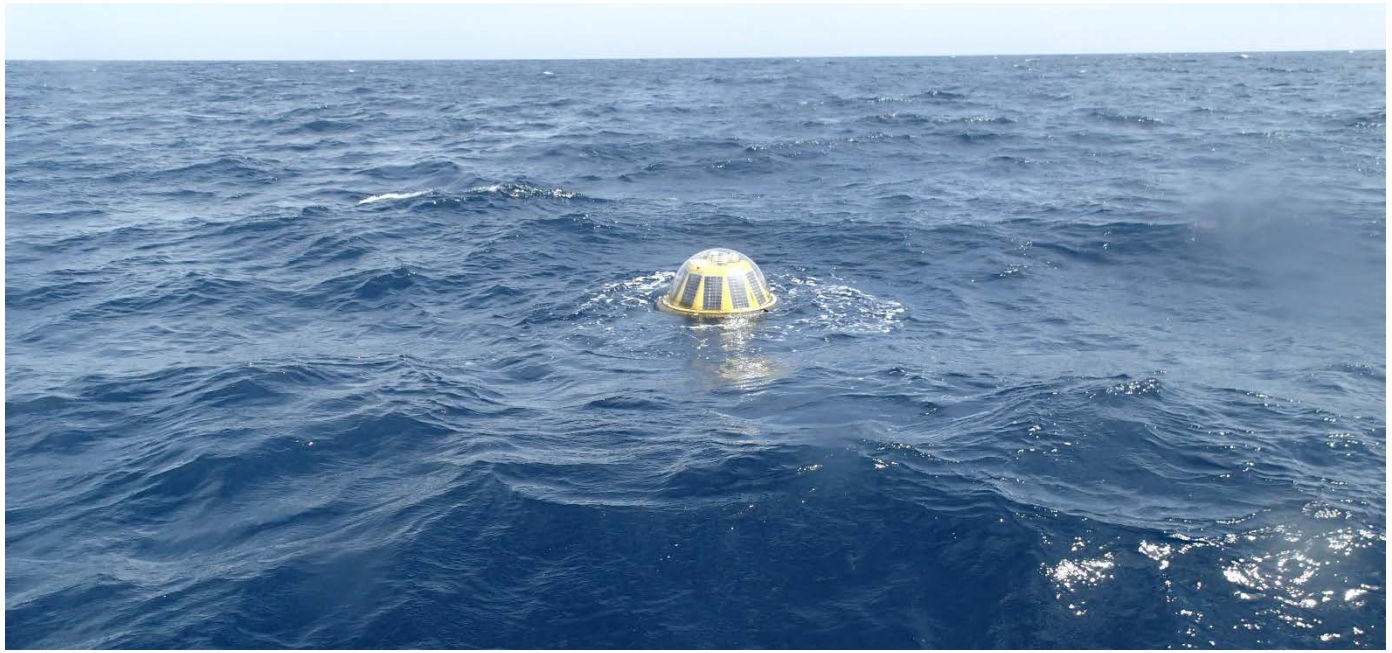
ARENA
Australian Government
Australian Renewable Energy Agency

westernpower

Island Microgrid Project #2 - Mauritius & Rodrigues

Mauritius Example

- Isolated grid system with peak load of 378MW
- Multiple generation sources (diesel, biomass, hydro, PV, wind,..)
- Approximately 22% from RE currently
- Near term target of 35%
- Long term target of +50%
- Will need grid integration technologies and distributed generation in the form of microgrids (importing/exporting) to ensure power quality and reliability can be maintained.



Wave Measuring Buoy Deployed off Mauritius in June 2016

Signing of MoU with Mauritian Government

Wave Measuring Buoy Deployment Mission in Mauritius

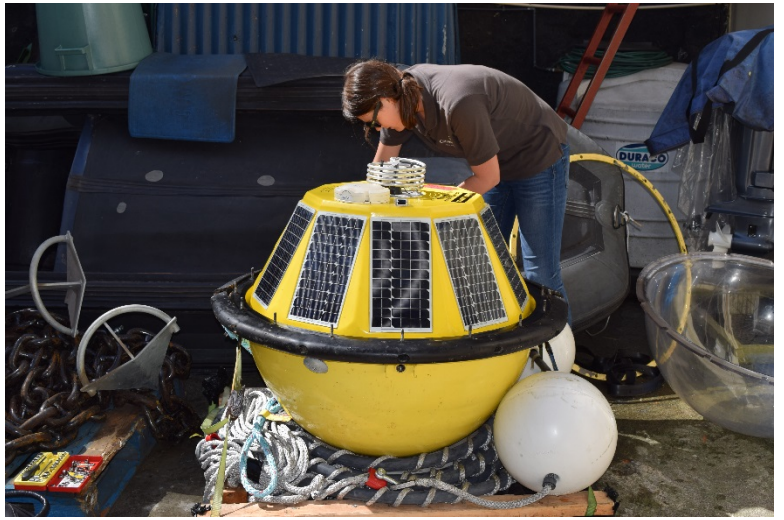
Island Microgrid Project #2 - Mauritius & Rodrigues

Work Packages:

1. A high penetration renewable energy roadmap for Mauritius, including technical, commercial and financial feasibility.
2. Assessment of the wave energy resource, site conditions and priority sites for commercial CETO wave energy devices.
3. Design of a decentralised micro-grid for the Island of Rodrigues, offering battery storage and control systems that enable higher renewable energy penetration (including wave).

Planned next stage

- Carnegie take its design and, against a PPA, deliver the financing, EPC and O&M of a solar, battery microgrid project.
- Existing project delivers a roadmap, at a detailed level, to subsequently deliver a wave power solution when required.



Key Achievements & Upcoming Developments

CETO 5 Perth Wave Energy Project

- ✓ 3 units installed and 14,000 hours of operation completed.
- ✓ Exported power and water to the Australian Department of Defence.
- ✓ Computational models validated.

CETO 6 Projects

- ✓ Western Australia Garden Island concept design complete.
  - Construction in 2017.
- ✓ UK Wave Hub berth secured.
  - Funding progress expected in coming months.
  - Construction 2018.

Microgrids

- ✓ Garden Island Microgrid ARENA grant, debt and equity secured
- EMC acquisition to be completed in Dec 2016
- Garden Island Microgrid solar/battery operation mid-2017.
- Mauritian project design completed in 2016 and delivery planned to commence in 2017.
- Developing project pipeline.