

ASX Announcement

Thursday July 7th, 2016

WA Minister for Energy Commissions EMC's Ravensthorpe Project

- WA Minister for Energy, the Honourable Mike Nahan, yesterday commissioned EMC's standalone power systems (SPS) at Ravensthorpe Project
- EMC Ravensthorpe Project involves construction, delivery and maintenance of 6 SPS systems for Western Australian grid owner and operator, Western Power
- SPS are scalable combinations of solar PV, battery and diesel that provide off-grid power

ASX-listed Carnegie Wave Energy (Carnegie) is pleased to advise that its Alliance Partner Energy Made Clean (EMC), in which Carnegie owns a 35% stake, hosted the Western Australian Minister for Energy, the Honourable Mike Nahan yesterday, to commission EMC's standalone power systems (SPS) at Ravensthorpe.

The Ravensthorpe Project, run by Western Power, will deliver electricity to the Ravensthorpe area and involves EMC constructing, delivering and maintaining six standalone power systems (SPS) - a battery energy storage system with a capacity of 80 Sony lithium ion batteries, capable of storing up to 88 kWh. EMC also constructed and installed twenty-four diesel backup generators, a state of the art remote monitoring and control system and a ground mount solar PV system with a capacity of 18 kW.



Minister for Energy, the Honourable Mike Nahan (second from left) with Member for Eyre, Graham Jacobs MLA (left), EMC CEO John Davidson (second from right), EMC Chairman Wayne Trumble (right) at Ravensthorpe

Each EMC SPS has been designed to be scalable, so that each system can easily be expanded, or altered as required. In addition to this, EMC has also developed a new app allowing consumers to view their power consumption and system performance in real time.

EMC CEO John Davidson said “The commissioning of EMC’s SPS’ is a great milestone in another significant project for EMC. Our industry leading technology and ability to deliver large scale projects is exemplified by our contribution to this Ravensthorpe Project.”

FACT FILE

Carnegie

[Carnegie Wave Energy Limited](#) is an Australian, ASX-listed (ASX: CWE) wave energy technology developer. Carnegie is the 100 per cent 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. Carnegie owns a 35% stake in EMC and the parties have a strategic alliance agreement. Carnegie's CEO, Dr Michael Ottaviano, is a Director of EMC.

Energy Made Clean

[EMC Solar Construction](#) are one of Australia's most successful specialist Engineering Procurement Construction (EPC) cleantech businesses, with several medium and high penetration microgrids delivered, several major projects under construction and a growing pipeline of new opportunities both within Australia and internationally. EMC is focused on the expansion of its scope and capabilities to service the accelerating demand for commercially-viable cleantech products and services. In April 2015, Carnegie and EMC signed an Investment and Alliance Agreement which saw Carnegie invest \$1.5 million in Carnegie shares and \$3 million in cash to take a 35 per cent stake in EMC.

EMC's Ravensthorpe Project Contribution:

- 6 x standalone power systems (SPS)
- Split phase 240V / 480V supply to customer switch board from 16 kVA split phase transformer
- Each system consists of two SMA sunny island inverters
- A battery storage capacity of 80 Sony lithium ion batteries for a total 88 kWh
- A ground mount solar PV system capacity of 18 kW with SMA 4kw 4000TL sunny boy inverters
- 24 diesel backup generators
- The system is designed to be modular, i.e. is scalable so that each system can easily be expanded, or altered as required.
- State of the art remote monitoring and control system
- Web app allowing consumers to view their power consumption and system performance in real time

For more information:

Dr Michael Ottaviano

CEO & Managing Director

Carnegie Wave Energy Limited

+61 8 9486 4466

enquiries@carnegiewave.com

Website: www.carnegiewave.com