

ASX ANNOUNCEMENT

8 February 2018

Western Australia's largest on-grid battery win

Highlights:

- Carnegie's wholly owned subsidiary Energy Made Clean (EMC) and JV partner Lendlease Services awarded the design and construction of a 5MW Battery Energy Storage System (BESS) for WA State Government utility Western Power.
- This BESS will integrate with wind, solar and the grid at Kalbarri to form the largest microgrid in Western Australia.
- Construction is scheduled to begin late-2018 and commence operation in mid-2019.

Carnegie Clean Energy Limited (ASX: CCE) is pleased to announce that its 100% owned subsidiary, leading Australian battery and solar engineering company, Energy Made Clean, and its Joint Venture partner, Lendlease Services have been awarded a \$6.8 million contract for the Supply, Delivery and Installation of a 5MW Battery Energy Storage System (BESS) facility located in Kalbarri, 500km north of Perth for Western Power. The BESS will have a 4.5MWh energy capacity and a minimum 2MWh that is accessible at any time for reliability back-up services.

With a capacity of a 5MW, and overload capacity to 10MW, the BESS will form part of the largest microgrid in Western Australia. The system will be supported by a trailing Operations and Maintenance (O&M) contract, serviced by the EMC Lendlease JV's dedicated maintenance team.







Currently, Kalbarri is solely supplied with electricity via a 140 km, 33kV radial Kalbarri feeder from Geraldton. This feeder is exposed to environmental factors including wind-borne marine salt and dust pollution, and combined with its length and remoteness, can lead to extended outages on the line.

With two modes of operation for the BESS facility, Kalbarri will now be able to be supplied reliable energy through Island Mode, capable of operating in isolation from the South West Interconnected Network, and also have access to energy through Grid Mode, which will provide network stabilisation services with regards to voltage and frequency to other generation sources.

Carnegie Clean Energy CEO & Managing Director, Dr Michael Ottaviano said the awarding of this project demonstrated its capability to deliver innovative utility-scale solar and microgrid solutions for customers across Australia.

"We're excited to have won an extremely competitive, global tender using the latest in storage and control technologies. This reinforces Carnegie's leadership in the design and delivery of innovative energy solutions in Australia."

"This BESS will deliver energy security to Kalbarri, a regional area of Western Australia which has previously had its energy supply disrupted because of its remote location."

"This contract award comes just over 12 months after the establishment of the EMC/Lendlease JV which has secured \$25m in orders in the last 4 weeks with Kalbarri and our Northam Solar Farm. With tender cycles running in excess of 12 months, and a clear focus on delivery of high value projects for utility grade customers, we are just starting to see the results of our hard work over the past year."

Speaking at the announcement of the contract, West Australian Energy Minister, Ben Wyatt said:

"This is a great outcome for the Western Australian economy and the Kalbarri community."

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"It is a game changer for regional communities who rely on power from a long feeder line, which is subject to environmental factors that can cause outages. The improved reliability for the region will boost the local tourism and retail operations, as well as enhance the lifestyle of residents.

"This partnership between Western Power and the EMC/LendLease JV also supports the Kalbarri community's desire to be renewable-powered, with this project being one of Australia's biggest 100% renewable microgrids."

The EMC Lendlease JV presented an optimised configuration of lithium-ion batteries and grid-forming battery inverters using its containerised BESS platform.

Design work for the project commences immediately, with construction scheduled to commence in November 2018 and operation by June 2019.



About Carnegie Clean Energy Limited

Carnegie Clean Energy Limited is an ASX-listed (ASX: CCE) solar energy, battery storage and wave energy, project developer with over 10,000 Australian shareholders. Carnegie is the 100% owner and developer of the CETO Wave Energy Technology intellectual property and is also 100% owner of leading Australian battery/solar microgrid Engineering Procurement and Construction (EPC) company Energy Made Clean (EMC). EMC specialises in the delivery of mixed renewable energy microgrid projects to islands and remote and fringe of grid communities. Carnegie is the only company in the world to offer a combination of wave, solar, wind, battery storage and desalination via microgrids which are ideally suited to islands, off grid communities and fringe of grid locations. Within Australia, Carnegie delivers its solar energy and battery storage projects via a joint venture between Energy Made Clean and multinational property and infrastructure company Lendlease (ASX: LLC).

About the Energy Made Clean/ Lendlease Joint Venture Agreement

In December 2016, Energy Made Clean signed a 50/50 Joint Venture Agreement with Lendlease's Services business. By leveraging Lendlease's national footprint across Australia, this JVA is providing opportunities for EMC to increase its capacity to bid for and deliver a broader range of solar, BESS and microgrid opportunities within Australia, including increased access to the National Energy Market (NEM). Lendlease's Services business employs approximately 3,000 people and has a presence in every Australian state and territory.

For more information

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Dr Michael Ottaviano
CEO & Managing Director
Carnegie Clean Energy Limited
+61 8 6168 8400
enquiries@carnegiece.com
www.carnegiece.com