



**MEDIA RELEASE**

**17 June 2021**

**Capricorn Power achieves significant operational milestone to unlock commercial potential of world-leading Barton heat engine**

**Melbourne, VIC:** Capricorn Power today started the first phase of the commissioning process for the Barton heat engine at their Austeng bioenergy power station project site. This is a significant operational milestone for Capricorn Power in unlocking commercial opportunities for the world-leading innovation, including additional waste-to-power bioenergy projects. The project is supported by the Advanced Manufacturing Growth Centre Co-operative Research Centre.

The Barton heat engine transforms waste heat into low-cost electricity at up to three times the efficiency of competing heat engines, using no water or chemicals. When paired with a charmaker, the heat engine can take green waste and create biochar as an additional byproduct, making the entire bioenergy power station carbon negative. The engine can be used in multiple applications to reduce waste and create electricity including water treatment facilities, agribusinesses and local councils.

This new, reliable renewable generation technology taps into one of the world's largest energy sources — waste heat. Capricorn Power CEO Mike Hodgkinson believes that the commissioning of the Barton heat engine signifies the beginning of sustainable heat and power in every community.

“Our core product requires less than 1% of the space per kilowatt hour output compared to solar PV,” said Hodgkinson. “You could think of this as the commercial and industrial business equivalent of a home solar PV and battery system. It provides customers with decarbonised operations and sustainable, reliable energy ‘behind the meter’ in a containerised solution.”

Hodgkinson also said that the Barton heat engine's AS4777 certified power conversion demonstrated today will provide grid support to firm the expanded roll out of intermittent renewables like solar PV and wind.

With the completion of commissioning and ‘reliable operation’ of the heat engine, Capricorn Power plans to further engage with strategic partners to enable new applications for industries looking for renewable energy solutions. Already with the support its Geelong-based partner Austeng, the company has submitted applications for EPA and local council approval, which means the project could be fully operational as a bioenergy power station by Q3 this year.

Capricorn Power is building significant momentum across all aspects of its operations. The company recently completed its fifth paid feasibility study with a local council, following on from feasibility studies with an ASX-listed company, a large Australian agribusiness, another local council and a water treatment facility.



In May, Ultima Grid Solutions (UGS) and Capricorn Power confirmed a joint venture project agreement on a detailed five-year, \$20M grid innovation program involving world-leading researchers from top universities across Australia. The project, subject to confirmation of grant program award, is working to boost renewable energy production in Australia.

“The engine’s commissioning means that we can focus on bigger projects like the grid innovation program with Ultima Grid solutions,” said Hodgkinson. “We’re looking to make sure that Australia is leading the way on finding new ways to supplant existing sustainable energy sources. We need more than wind and solar to power Australia as we wean ourselves off of coal and other fossil fuels.”

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### **About Capricorn Power**

Established in Melbourne, Australia in 2016, Capricorn Power is developing the world’s most efficient heat engine at container scale and using this to help solve pressing global waste and waste heat problems. Heat engines generate over 70% of the world’s electricity<sup>1</sup>, yet over 72% of their heat is wasted<sup>2</sup>, representing a multi-trillion dollar opportunity. The technology is manufactured by Austeng in Geelong, Australia. In 2019 Mission Innovation named Capricorn Power as one of the world’s top cleantech innovations, in 2017 Capricorn Power represented Australia in the global Climate Launchpad and in 2018 Capricorn Power won the Australian Technologies Competition (new energy). Capricorn Power has received grants from Regional Jobs and Investment Program and Advanced Manufacturing Growth Centre for the development of its innovative energy solution for both domestic and international markets.

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Photos available under free license: <https://ws.onehub.com/folders/4tntldly>

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<sup>1</sup> 2019 BP statistical review. includes nuclear. ~65% oil, gas and coal.

<sup>2</sup> Clemens Forman et al Renewable and Sustainable Energy Reviews, vol 57, May 2016.