

## INDEPENDENT LI-ION BATTERY AND LUBRICATION TEST RESULTS

- **Independent testing of Hazer Graphite by CSIRO demonstrates promise as anode material for Li-ion batteries**
- **Independent preliminary testing of Hazer Graphite for lubrication properties completed by University of Wollongong.**

**PERTH, AUSTRALIA; 10 DECEMBER 2018:** Perth-based technology company Hazer Group (ASX:HZR) has continued the testing of graphite co-produced with hydrogen through the Company's Hazer Process. Independent test results of Hazer graphite's suitability for use in two major commercial applications (li-ion battery anodes & dry lubricants) have demonstrated promising initial results.

"We continue to progress an active R&D program, in collaboration with our strategic partner in the graphite market, Mineral Resources Limited, to demonstrate the capability and applicability of Hazer produced graphite in key commercial markets. Independent, as well as in-house, testing is a key part of this program. We are very encouraged by these initial results in two significant sectors of the \$141 billion global graphite market." said Hazer CEO Geoff Ward.

### Li-Ion Battery Third Party Testing - CSIRO

CSIRO Energy was engaged to conduct independent electrochemical testing of five Hazer graphite samples against two commercial anodes including a coated spherical graphite produced from flake graphite and an uncoated synthetic spherical graphite.

The results reaffirm the potential for Hazer graphite to be used in Li-ion batteries with four of the five samples out-performing the commercial benchmarks.

The CSIRO report states "The promising results obtained here for most of the materials suggest that this inventory could be further optimized for use as battery electrode materials".

The report also suggested that the results could be improved even further, stating "All cells based on Hazer materials showed improving capacity performance throughout the evaluation".

"Li-ion anodes remain a very promising end market for graphite produced from the Hazer process. We look forward to continuing to pursue this opportunity through our collaboration with Mineral Resources Limited." said Mr Ward.

### Lubrication Preliminary Testing - University of Wollongong

The University of Wollongong was commissioned under contract to perform preliminary testing of Hazer Graphite which indicated tribological performance characteristics. The initial research results are promising with further research and testing required to fully compare the performance of Hazer graphite against commercially available dry lubricants made from natural flake graphite.

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Hazer CEO Geoff Ward commented,

“We are encouraged by these promising initial test results for the suitability of Hazer Graphite for future use in manufacture of lubricants. We believe the graphite produced by the Hazer Process will be a versatile material capable of being utilised in a range of existing and new applications. Further research and testing of the potential for Hazer Graphite to be used in this market will be pursued through our ongoing R&D program in 2019.”

[ENDS]

#### **ABOUT HAZER GROUP LTD**

Hazer Group Limited (“Hazer” or “The Company”) is an ASX-listed technology development company undertaking the commercialisation of the Hazer Process, a low-emission hydrogen and graphite production process. The Hazer Process enables the effective conversion of natural gas and similar methane feedstocks, into hydrogen and high quality graphite, using iron ore as a process catalyst.

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