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EcoGraf<sup>®</sup>

# Study Confirms EcoGraf HF*free*<sup>™</sup> Process Cost Advantages

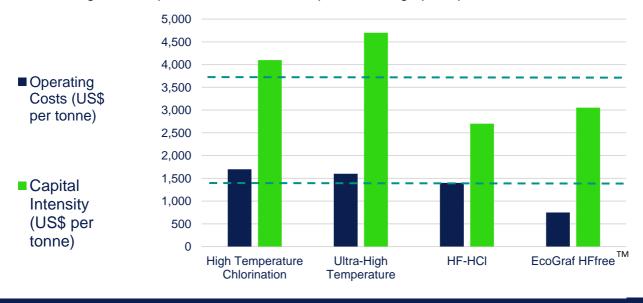
**EcoGraf Limited** (ASX: **EGR**; FSE: **FMK**; OTCQB: **ECGFF**) is pleased to announce the completion of its comparative independent benchmarking study of the EcoGraf HF*free*<sup>™</sup> proprietary purification process against alternative purification process routes for the purification of natural spherical graphite in manufacturing of lithium-ion battery anode material.

Key findings:

- Confirms EcoGraf HFfree™ purification process comparative advantages for the lithiumion battery market
  - Offers competitive economics compared to the other purification methods
  - Minimal hazardous waste production, primarily generating benign or inert residues and waste streams
  - Scalable process that is capable of being located within the battery manufacturing hubs
- Commercial development further de-risked through extensive customer product qualification and Product Qualification Facility (PQF)
- New raw material demand for graphite in North America and Europe expected to increase significantly from 2026<sup>1</sup>

The benchmarking evaluation program was conducted for the Company by a global engineering and construction consultancy and involved a rigorous assessment of industry purification processes, capital and operating costs and associated risks, located in United States (US).

Study factors, including process design and economic efficiency were used to assess the feasibility of alternative purification methods and confirmed the technical and economic advantages of the EcoGraf HFfree<sup>™</sup> purification process versus alternative processes. The results of the benchmarking cost comparison is shown below, per tonne of graphite processed.



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## EcoGraf Limited



Alternative purification process routes benchmarked included high temperature chlorination, ultrahigh temperature and hydrofluoric-hydrochloric (HF-HCL).

The capital intensity is based on a production capacity of 25,000tpa which is the size of that plant design and engineering undertaken by EcoGraf for its planned initial commercial scale facility. Capital and operating costs for all purification process have been calculated based on a US location. Appropriate adjustments to processing parameters were made to ensure an accurate comparison for each purification process.

The results of the benchmarking study are highly encouraging in confirming the efficiency of the Company's US patented proprietary purification process and build on the recent outstanding technical results of EcoGraf HFfree<sup>™</sup> proprietary, purification achieving ultra-high purity 4N 99.99% carbon (refer announcements dated 9 April 2024 *EcoGraf Proprietary Purification Achieves 4N 99.99% Carbon*).

The Company is currently completing development of a Product Qualification Facility ('PQF') to provide lithium-ion battery market customers with larger quantities of its high-purity, low emission battery anode material product using the EcoGraf HFfree™ processing technology (refer announcement dated 26 March 2024 *Product Qualification Facility Commissioning Commenced*) and expects to provide a further progress update shortly as the commissioning is progressing well.

This announcement is authorised for release by Andrew Spinks, Managing Director.

## For further information, please contact:

## **INVESTORS**

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Note 1 - Based on forecast demand reported by Benchmark Mineral Intelligence (www.benchmarkminerals.com)

#### Forward looking statements

Various statements in this announcement constitute statements relating to intentions, future acts and events. Such statements are generally classified as "forward looking statements" and involve known and unknown risks, uncertainties and other important factors that could cause those future acts, events and circumstances to differ materially from what is presented or implicitly portrayed herein. The Company gives no assurances that the anticipated results, performance or achievements expressed or implied in these forward looking statements will be achieved.

#### About EcoGraf

EcoGraf is building a vertically integrated battery anode materials business to produce high purity graphite products for the lithium-ion battery and advanced manufacturing markets. Over US\$30 million has been invested to date to create a highly attractive graphite mining and mineral processing business.

In Tanzania, the Company is developing the TanzGraphite natural flake graphite business, commencing with the Epanko Graphite Project, to provide a long-term, scalable supply of feedstock for EcoGraf<sup>™</sup> battery anode material processing facilities, together with high quality large flake graphite products for specialised industrial applications.

Using its environmentally superior EcoGraf HF*free*<sup>™</sup> purification technology, the Company will upgrade the flake graphite to produce 99.95%C high performance battery anode material to supply electric vehicle, battery and anode manufacturers in Asia, Europe and North America as the world transitions to clean, renewable energy.

Battery recycling is critical to improving supply chain sustainability and the Company's successful application of the EcoGraf<sup>™</sup> purification process to recycle battery anode material provides it with a unique ability to support customers to reduce CO<sub>2</sub> emissions and lower battery costs.

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