

# Successful PQF Operational Campaign

## Demonstrates Continuous Production of High Purity EcoGraf HFfree<sup>®</sup> Battery Anode Material

**EcoGraf Limited** (ASX: **EGR**; FSE: **FMK**) is pleased to announce the successful operational campaign of its Product Qualification Facility (PQF) to produce high purity EcoGraf HFfree<sup>®</sup> purified spherical graphite (SPG) on a continuous basis in accordance with battery anode manufacturer's chemical specifications, while preserving important physical characteristics required for lithium battery applications.

### Key Highlights

- **PQF operational campaign successfully produces high purity SPG on a continuous basis, with key equipment and materials performing reliably and effectively**
- **Analysis of product from the PQF confirms the key chemical and physical specifications essential for anode coating**
- **Non-binding agreements signed to support sales and progress development of a purification facility, while discussions continue with a range of auto OEMs, battery manufacturers and potential supply chain customers**
- **New non-Chinese demand forecast to significantly grow in Europe and North America driven by increasing EU legislation<sup>1</sup> and US government tariffs<sup>2</sup>**

### PQF Operation Update

EcoGraf's HFfree<sup>®</sup> purification technology has now operated on a continuous basis with key equipment and materials of construction performing reliably during the production campaigns. PQF operational campaigns are continuing to provide valuable data for the Company's planned commercial scale deployment of the EcoGraf HFfree<sup>®</sup> purification process.

This significant milestone follows the successful PQF commissioning phase last year and also extensive bench scale testwork that showed the purification technology achieving extremely high purification levels of up to 99.99% carbon. Analysis of product from the PQF confirms it achieves the key chemical specifications for Iron(Fe), Silicon(Si), Sulphur(S) and Aluminium(Al), while significant process controls and a rigorous testing regime has ensured the SPG physical properties are preserved through the processing steps, with customer evaluations supporting the PQF operational campaign results.

EcoGraf is also pleased to report that it has signed a non-binding agreement with an international chemical group for the potential supply of SPG and has received a letter of support from a major battery manufacturer for establishing an EcoGraf HFfree<sup>®</sup> purification facility.



## Launch Video

View: <https://tinyurl.com/3vtn6dus>

The Company advises that any commercial delivery under these arrangements will be subject to agreed conditions between the parties and completion of due diligence and respective company approvals. Further updates will be provided in due course.

The Company is also continuing discussions with a range of auto OEMs, battery manufacturers and other potential supply chain customers.

EcoGraf HFfree® processing technology and vertically integrated battery anode materials development is expected to provide significant customer cost and environmental benefits, which commences with high quality graphite from its Epanko Graphite Project in Tanzania.

Epanko is the largest "development-ready" graphite mineral resource in Africa. KfW IPEX-Bank is mandated for UFK loan of up to US\$105 million for construction of the Epanko.

**Figure: EcoGraf HFfree® BAM competitive and cost benefit advantages<sup>3</sup>**



**Downstream Development Strategy**

The Company’s development strategy is based on establishing multiple purification facilities in the major battery manufacturing hubs in Europe, North America and Asia using its EcoGraf HFfree® US patented processing technology.

EcoGraf is evaluating a number of potential development sites as it expects customer adoption of new non-Chinese demand to significantly grow in Europe and North America, underpinned by increasing EU legislation and US Government tariffs.

Supporting EcoGraf’s multi-hub growth strategy is the positive customer feedback received from product testing and forecasts of higher demand for natural graphite providing performance benefits, reduced costs and a lower carbon footprint (refer following figure).

**Figure: Carbon footprint of EcoGraf HFfree® natural battery anode material is up to 4.6 times lower than synthetic graphite anode material**



## Intellectual Property

The Company is also pleased that IP Australia recently advised that it has accepted EcoGraf's second patent application filed in Australia providing additional coverage on EcoGraf HFfree® purification operations including the application to anode recycling. This follows the Company's first granted patent application in the USA.

The PQF is jointly funded through the Commonwealth Government's A\$48.9 million Critical Minerals Development Program, which is supporting Australian battery minerals processing capability. The positive support from the Australian Government is highly valued, with the Company in receipt of A\$2.9m grant funding disbursements for the PQF program to advance Australian critical minerals processing technology.

Refer ASX announcements dated 26 March 2024 and 17 July 2024 for further information.

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

### For further information, please contact:

#### INVESTORS

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#### Note:

1. *Benchmark Mineral Intelligence*
2. *US White House release and recent media reports*
3. *Company reports and internal studies (www.ecograf.co.au)*

#### 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 business which includes:

- Epanko Graphite Mine in Tanzania;
- Mechanical Shaping Facility in Tanzania; and
- EcoGraf HFfree® Purification Facilities located in close proximity to the electric vehicle, battery and anode manufacturers.

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® battery anode material processing facilities, together with high quality large flake graphite products for specialised industrial applications.

In addition, the Company is finalising its planned location for its Mechanical Shaping Facility in Tanzania, which will manufacture natural flake graphite into spherical graphite (SPG). This mechanical micronising and spheronising is the first step in the conversion of high-quality flake graphite concentrate into battery grade anode material used in the production of lithium-ion batteries.

Using its environmentally superior EcoGraf HFfree® purification technology, the Company will upgrade the SPG to produce 99.95%C high performance battery anode material to supply electric vehicle, battery and anode manufacturers in Asia, Europe and North America.

Battery recycling is critical to improving supply chain sustainability and the Company's successful application of the EcoGraf® purification process to recycle battery anode material provides it with a unique ability to support customers to reduce CO2 emissions and lower battery costs.

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