

EcoGraf Conducts Global Bi-Product Development Programs

PRODUCTS TO SUPPORT NEW MATERIALS FOR THE DECARBONISED ECONOMY

Diversified battery anode materials company **EcoGraf Limited (EcoGraf or the Company)** (ASX: **EGR**; FSE: **FMK**; OTCQX: **ECGFF**) is pleased to announce the progress of its bi-product development activities supporting the Company's zero waste operating strategy for its new EcoGraf™ Battery Anode Material (**BAM**) Facility in Western Australia.

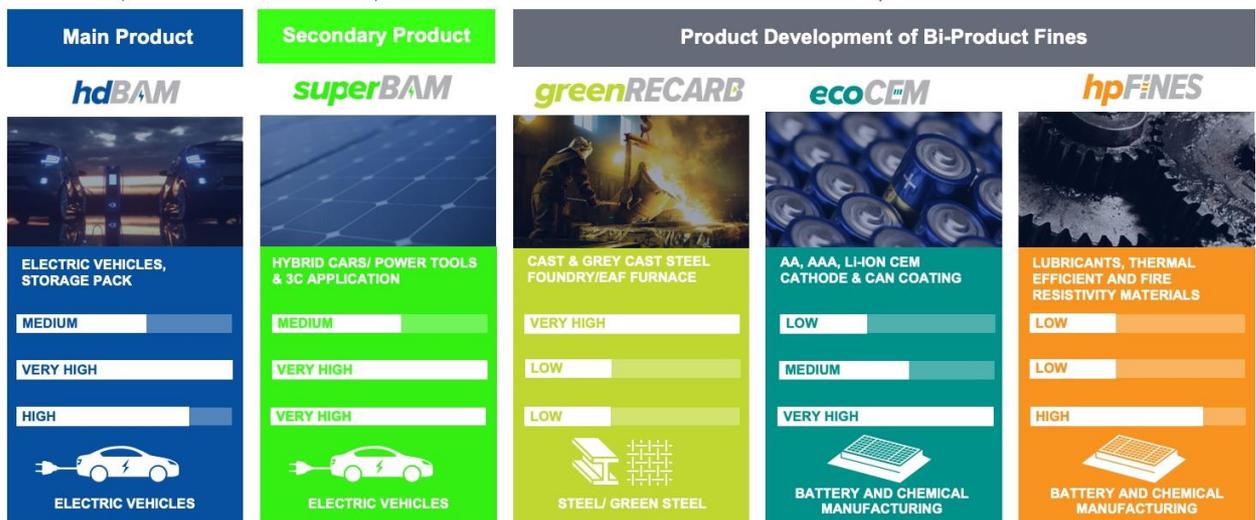
Key Highlights

- + Development programs commenced in Europe, Asia and the United States for GreenRECARB, EcoCEM and hpFiNES products
- + Product development to support the Life Cycle Assessment (LCA) models required by major EV manufacturers
- + New product development provides the opportunity to access higher-value customer markets and maximise the economic and sustainability advantages of the unique EcoGraf™ purification process

An extensive international product development program is being undertaken for the bi-product fines that's generated from the manufacture of EcoGraf™ HFfree high density battery anode material (hdBAM) and ultra-fine superBAM products.



HFfree™ BATTERY ANODE MATERIAL PRODUCTS



Recent independent testing has confirmed the effectiveness of the EcoGraf™ purification process to produce high purity battery anode material that has outperformed international benchmarks (refer ASX Announcement *Successful Completion of Product Qualification Program* 18 October 2021) and the Company believes there is a significant opportunity to develop a range of value-added products using its bi-product fines.

A summary of the initial programs for recarburisers, conductivity enhancers and purified fines is provided below.

greenRECARB

EcoGraf™ GreenRECARB is a low emission recarburiser additive for the steel manufacturing industry. After an initial successful assessment, a major testing program is underway to develop a premium additive for the Electric Arc Furnace (EAF) and Induction Furnace steel manufacturing industry. Steel makers are seeking more sustainably produced additive materials to replace the use of energy intensive, fossil fuel based calcined petroleum coke products.

EAF steel production currently accounts for approximately 30% of the global steel market and requires a minimum of 3-4% recarburiser additive, providing a market opportunity of up to 1,000,000 tonnes of recarburiser per annum. Market development activities for the GreenRECARB products include existing steel manufacturers and the rapidly emerging green steel industry.

ecoCEM

EcoGraf™ ecoCEM is a conductivity enhancement material (CEM) to improve the performance of cathodes and alkaline batteries. Ultra-fine sizes of this premium product used in battery coatings are priced at up to US\$30,000/tonne and the products represent a complementary extension of the Company's battery anode material production capabilities.

The alkaline battery market represents 10-15% of the total graphite market and is expected to grow at ~5% per annum, with key participants being Duracell Inc. and Energizer Holdings in the United States, Camelion Batterien in Germany and Sanyo, Sony and Panasonic in Japan.

hpFiNES

EcoGraf™ hpFines is a product additive for use in specialised industrial applications that require its lubrication, thermal efficiency and fire-resistant properties. Initial samples of these products have been successfully qualified by two leading European industrial groups and the Company is investigating additional purified fines product market opportunities.

Successful bi-product development enhances the environmental advantages of the new West Australian EcoGraf™ Battery Anode Material Facility by maximising productive efficiency, reducing production waste and providing customers with high quality, sustainably produced products to support their environmental objectives. Improving supply chain sustainability through Life Cycle Assessment (LCA) methodology is an important focus globally and as part of the development programs, EcoGraf is working with prospective customers to optimise their LCA models.

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

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ENGINEERING CLEAN ENERGY

About EcoGraf

EcoGraf is building a diversified battery anode material 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 two highly attractive, development ready graphite businesses.

The first new state-of-the-art **EcoGraf** processing facility in Western Australia will manufacture spherical graphite products for export to Asia, Europe and North America using a superior, environmentally responsible **HFfree** purification technology to provide customers with sustainably produced high performance battery anode material. Subsequently, the battery graphite production base will be expanded to include additional processing facilities in Europe and North America to support the global transition to clean, renewable energy in the coming decade and the rapid growth in battery materials.

In addition, the Company's breakthrough recovery of carbon anode material from recycled batteries using its EcoGraf™ process will enable the recycling industry to reduce battery waste and use recycled carbon anode material to improve battery lifecycle efficiency.

To complement these battery graphite operations, the Company is also advancing the **TanzGraphite** natural flake graphite business, with development of the Epanko Graphite Project, which will supply additional feedstock for the battery anode material facilities and provide customers with a long term supply of high quality graphite products for industrial applications such as refractories, recarburisers and lubricants.



A video fly-through of this new facility is available online at the following link:

<https://www.ecograf.com.au/#home-video>

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