

29 NOVEMBER 2022

ASX ANNOUNCEMENT

ASX: EGR

AGM Investor Presentation

Diversified battery anode materials company **EcoGraf Limited** (**EcoGraf** or the **Company**) (ASX: **EGR**; FSE: **FMK**; OTCQX: **ECGFF**) is pleased to release a copy of the AGM Investor Presentation to be provided by Andrew Spinks to shareholders at the Annual General Meeting to be held in Perth, Western Australia commencing at 10:00 am AWST today.

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

For further information, please contact:

INVESTORS & MEDIA

Andrew Spinks Managing Director T: +61 8 6424 9002

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 mining and mineral processing graphite 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 the EcoGraf[™] battery anode material processing facilities, together with high quality large flake graphite products for industrial applications.

Using a superior, environmentally responsible EcoGraf HF*free*TM purification technology, the Company plans to produce high performance battery anode material to support electric vehicle, battery and anode manufacturers in Asia, Europe and North American as the world transitions to clean, renewable energy. In addition, EcoGraf's breakthrough recovery of battery anode material using its $EcoGraf^{TM}$ purification process will enable battery supply chain customers to reduce their CO₂ emissions and lower battery costs.

Follow EcoGraf on LinkedIn, Twitter, Facebook and YouTube or sign up to the Company's mailing list for the latest announcements, media releases and market news.



EcoGraf Limited 18 Richardson Street West Perth WA 6005 ABN: 15 117 330 757 E: info@ecograf.com.au www.ecograf.com.au Managing Director Andrew Spinks T: +61 8 6424 9002 EXTRACT UPGRADE RECYCLE



EcoGraf™

Annual General Meeting 2022 Presentation

ASX: EGR FSE: FMK OTCQX: ECGFF



Securities Disclaimer

This presentation is for informational purposes only and does not constitute an offer to sell, or solicit to purchase, any securities. Such offer can be made only through proper subscription documentation and only to investors meeting strict suitability requirements. Any failure to comply with these restrictions may constitute a violation of applicable securities laws.

Forward looking statements

Various statements in this document 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.

Production targets and financial information

Information in relation to the feasibility study conducted on the production of battery graphite using the Company's EcoGraf technology, including production targets and forecast financial information derived from the production targets, included in this document is extracted from an ASX announcement dated 5 December 2017 "Battery Graphite Pilot Plant", as updated on 17 April 2019 "EcoGraf Delivers Downstream Development", 5 November 2020 "Completion of EcoGraf™ Processing Facility Development Report" and 14 July 2021 "Commercial Scale Program Delivers 20% Product Yield Increase", available at <u>www.ecograf.com.au</u> and <u>www.asx.com.au</u>. The Company confirms that all material assumptions underpinning the production targets and forecast financial information derived from the production targets set out in the announcement released on 5 December 2017, as updated on 17 April 2019, 5 November 2020 and 14 July 2021 continue to apply and have not materially changed.

Information in this document relating to the Bankable Feasibility Study conducted on the Epanko Graphite Project, including production targets and forecast financial information derived from the production targets, included in this document is extracted from an ASX announcement dated 21 June 2017 "Updated Bankable Feasibility Study" available at <u>www.ecograf.com.au</u> and <u>www.asx.com.au</u>. The Company confirms that all material assumptions underpinning the production targets and forecast financial information derived from the production targets set out in the announcement released

on 21 June 2017 continue to apply and have not materially changed. Competent persons

Any information in this document that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr Andrew Spinks, who is a Member of the Australasian Institute of Mining and Metallurgy included in a list promulgated by the ASX from time to time. Andrew Spinks is a director of EcoGraf Limited and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Andrew Spinks consents to the inclusion in this document of the matters based on his information in the form and context in which it appears.

Information in this document that relates to Mineral Resources is based on information compiled by Mr David Williams, a Competent Person, who is a Member of the Australasian Institute of Mining and Metallurgy. David Williams is employed by CSA Global Pty Ltd, an independent consulting company and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". David Williams consents to the inclusion in this document of the matters based on his information in the form and context in which it appears.

Information in this document that relates to Ore Reserves has been compiled by Mr Steve O'Grady, who is a Member of the Australasian Institute of Mining and Metallurgy. Steve O'Grady is a full-time employee of Intermine Engineering and produced the Mining Reserve estimate based on data and geological information supplied by Mr Williams. Mr O'Grady has sufficient experience which is relevant to the estimation, assessment and evaluation of the economic extraction of the Ore Reserve that he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Steve O'Grady consents to the inclusion in this document of the matters based on his information in the form and context in which it appears.

COMPANY CONTACT

ANDREW SPINKS MANAGING DIRECTOR

18 Richardson Street, West Perth WA 6005

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Vertically Integrated Battery Anode Material Business

Supporting the global transition to clean energy



Corporate snapshot

Market capitalisation							
A\$142M							

Cash balance² A\$43.4M

Shares on issue¹ 450m

Debt²



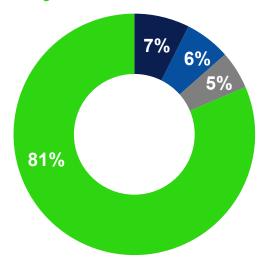
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As at 21 November 2022
 As at 30 September 2022

3. As at 31 October 2022

4. As at 21 November 2022

Major shareholders³



First Sentier Investor
Board and management
Paradice Investment Management
Other

ASX: EGR Börse Frankfurt: FMK USA OTCQX: ECGFF

EcoGraf*



Our board and management team

EcoGraf[®]



Robert Pett Non-Executive Chair

Robert is a mineral economist with over 30 years' experience working in exploration and mining in Australia and Africa. He has overseen the successful exploration, development, operation and financing of projects globally.



Andrew Spinks Managing Director

Andrew is a geologist with over 25 years' professional experience in Australia, Asia and Africa across a range of commodities. He has held a range of diverse roles, managing the exploration and development of projects.



John Conidi Non-Executive Director

John is a certified Practicing Accountant with over 20 years' experience developing, acquiring and managing businesses in the technology and healthcare sectors.



Dale Harris Chief Operating Officer

Dale Harris is an accomplished resource's executive with over 30 years' experience across multiple commodities including almost 20 years with Rio Tinto as Chief Operating Officer and several <u>General Manager roles.</u>



Howard Rae Chief Financial Officer

Howard is a Chartered Accountant with over 20 years' experience acquiring developing, financing and operating a range of businesses in Australia, Canada, Asia, Africa and Europe.



Karen Logan Joint Company Secretary

Karen is a Chartered Secretary with extensive compliance, capital raising, merger and acquisition, IPO and backdoor listing experience in a diverse range of industries including resources, technology, media, health care and life science.



Michael Chan Executive Manager Product Development

Michael is a Minerals Engineer and Chartered Engineer with 35 years' experience in senior operations, project development and commercial roles with 8 years of graphite/spherical graphite/battery anode material project experience.



Shaun O'Neill Executive Manager Project Development

Shaun is a metallurgist with 23 years' experience in operations, project management and commissioning across a range of commodities. He's been responsible for Project Managing the largest lithium hydroxide processing plant in Kwinana.



Marshall Hestelow Commercial Manager

Marshall is an accountant with over 30 years' experience in senior management roles within ASX listed mining companies, that are active both in Australia and internationally.



Christer Mhingo Director of TanzGraphite Limited

Christer is a highly skilled, dynamic and motivated geologist, experienced in working with exploration and mining companies across a range of commodities in Africa and overseas.



Chrisjan Van Wyk Epanko Senior Project Manager

Chrisjan has almost 30 years' industry experience in the development and operation of multiple mining operations in Africa and a demonstrated track record of delivering large and complex projects on time and within budget.

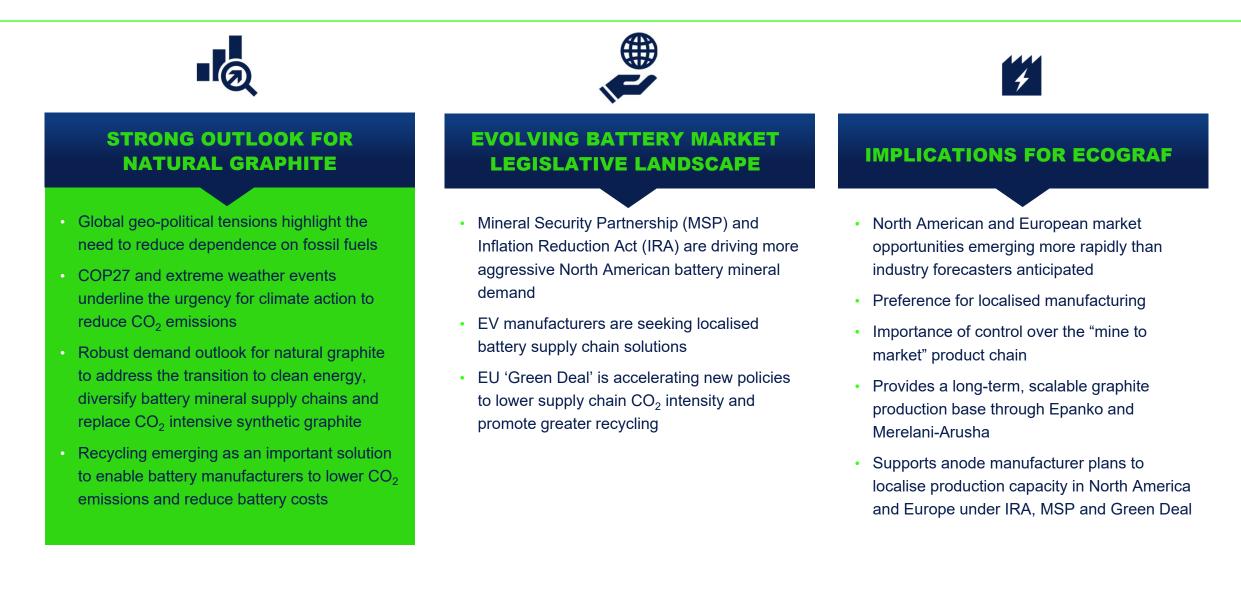


Jonathon Childs Senior Process Engineer

Jonathon is a metallurgist and chemist with 15 years' experience. He has worked across a broad range of commodities in consulting, operational, commissioning and project roles.

Recent graphite market dynamics

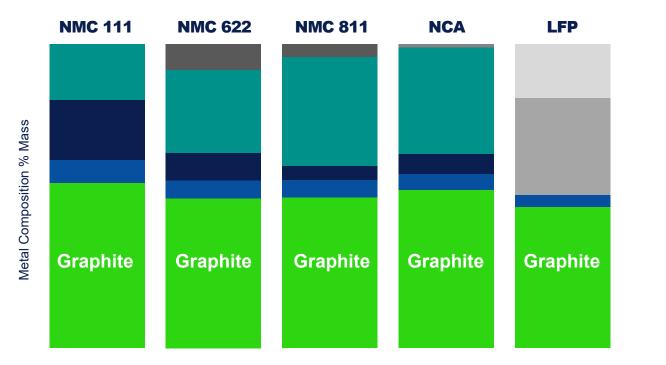




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Lithium-ion battery chemistry





Graphite Lithium Cobalt Nickel Manganese Aluminium Iron Phosphate

Graphite will continue to dominate as the anode material in lithium-ion batteries

Lithium-ion battery to drive strong demand for graphite

1.1kg required per kWh

50kg – 55kg Natural flake graphite required per EV

27kg of 99.95%

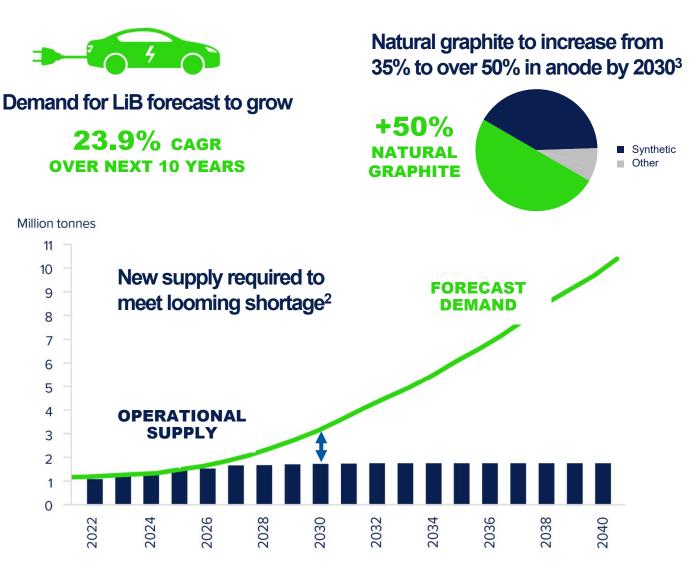
High purity battery grade anode material required per EV

High growth lithium-ion battery market

🔁 EcoGraf

Graphite is the key raw material to decarbonise the economy¹





Global natural graphite production

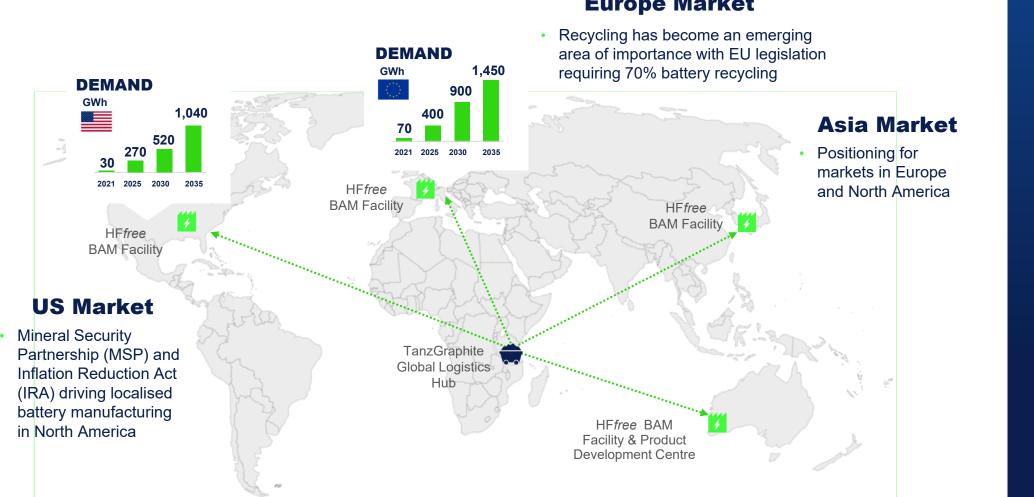


TanzGraphite's Epanko Project is positioned to support the forecast supply gap



Localised production supplied by East African logistics hub





Europe Market



С







Supporting demand for new sources of long-term, high quality and low CO₂ supplies of battery graphite

Accelerate development and expansion of Epanko to align with BAM requirements and mitigate feedstock risks Expand Australian BAM product qualification capacity to secure offtake, matched to customer demand Increase BAM value proposition through value added product developments and coatings Evaluate mechanical shaping in Tanzania using low-cost renewable energy and optimising supply chain logistics efficiencies

Collaborate with EV, battery and anode manufacturers to support localised manufacturing developments

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Positive progress during 2022



EXTRACT

- Epanko Framework Agreement process well advanced with the Government of Tanzania
- GR Engineering and EcoGraf finalising a detailed update of the Epanko bankable feasibility study capital and operating cost estimates
- Epanko showcased at Tanzanian Government Mining Conference and honoured to be recognised as 'first runner' at the conference
- Evaluation of new mining methods to lower carbon emissions and enhance Epanko's sector leading ESG credentials
- Discussions with Tanzanian Government to scope and present a regional graphite development for Merelani-Arusha

RECYCLE

- Advanced lithium-ion anode recycling business with electrochemical testwork confirming recycled battery graphite performance
- Supported European EIT winning German research program
- Completed further analysis for a range of EV and battery manufacturers

UPGRADE

- Completed initial permitting and works approvals processes for Western Australian BAM development
- Secured conditional Government approval for US\$40m expansion loan
- Secured extended lease option for the Kwinana-Rockingham Strategic Industrial Area
- Provisional acceptance of Australian patent by IP Australia for EcoGraf™ HFfree Purification Technology
- Additional patents submitted in all major global markets
- Successful production of first GreenRECARB products and enhanced HPA doped coatings, demonstrating improved electrochemical performance
- Independent ISO-Compliant LCA study completed, confirming CO₂ advantages of EcoGraf HFfree™ process

CORPORATE

- Leadership team expanded with appointment of Chief Operating Officer and technical team in response to positive developments in Tanzania
- EcoGraf OTC shares approved for electronic trading in the US

2023 Outlook



The future is electric and it's time to capitalise...



EXTRACT

- Commence Epanko
 60+ktpa development
- Scope Merelani-Arusha Project development
- Complete battery graphite mechanical shaping plant plans

UPGRADE

4

- Expand existing product qualification capacity
- Finalise planning and partnerships to support BAM Facility development



...on the Company's business developments.

> ڏي Recycle

- Collaborate with partners on development of recycling pilot plant
- Expand product development and qualification program

EU Commission's battery ESG regulations







EcoGraf's sector leading ESG credentials are aligned to the new energy lending policies that support projects relating to the supply of critical raw materials



Epanko natural flake graphite Project

EcoGraf

EXTRACT





TanzGraphite Natural **Graphite Projects**

KEY ACTIVITIES



Finalising framework agreement with Tanzanian Government



Confirming expansion options and evaluating benefits of in-country micronizing and spheronizing to

Financing and development 2023

optimize global supply chain

Two advanced, high quality, long life Tanzanian natural graphite projects provides supply diversity and scale-up optionality

Exceptional geology provides superior performance

EPANKO

- Development ready project defined and de-risked, commencing at 60,000tpa with potential to significantly expand production to meet market demand¹
- Bank appointed Independent Engineer's Review completed by SRK Consulting
- Sector leading ESG credentials with Equator Principles development model, satisfying:
- International Finance Corporation Performance Standards
- ✓ World Bank Group Environmental, Health & Safety Guidelines
- Attractive metallurgy 99% purity flake graphite potential without additional milling or cleaning stages²

MERELANI-ARUSHA

Supportive Government with plans for additional development of the Arusha mining sector



1. Refer to ASX announcement "EcoGraf TanzGraphite Expansion Options to Support Market Growth", 20 May 2022

2. Refer to ASX announcement "Updated Bankable Feasibility Study", 21 June 2017

Epanko's significant contribution to Tanzania



Economy growth US\$3B+

Direct contribution to the economy over 40+ years through local procurement of goods and services, employment, royalties, taxes and dividends

✓ Local employment

300+4,500 jobs

300 to be directly employed (over 95% of all staff) for 40+ years 4,500 indirect jobs + new industry



Ommunity benefits



🗿 Epanko standards



Senewable energy

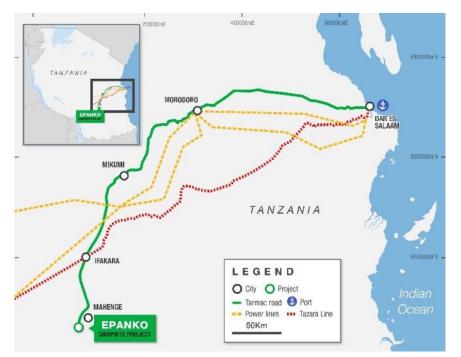
Transformational financial and social upliftment for the Mahenge region

+ 🚧

Strong multiplier effect across the economy, with an estimated US\$9+ billion additional indirect economic benefits over 40+ years

Epanko natural graphite project

Established Regional Infrastructure

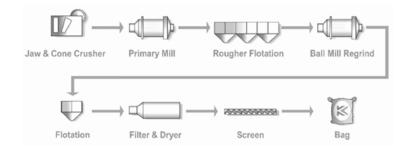


Export Infrastructure at Dar Es Salaam



Epanko flexible process flowsheet design

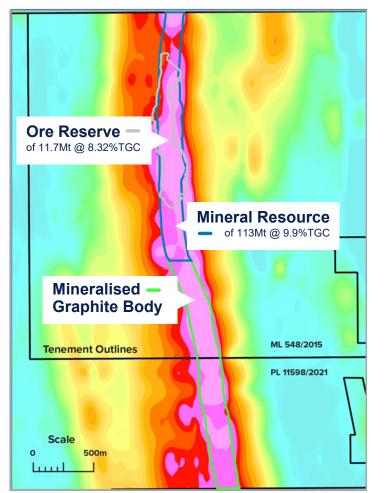
- Process flowsheet based on established industry techniques and equipment
- Independent testwork conducted to support BFS, including 200 tonne bulk sample toll treated through an operating graphite production plant
- Rigorous testing of flowsheet dynamics to produce desirable product properties for both industrial uses and high growth lithium-ion battery markets





TanzGraphite natural graphite projects





JORC classification	Tonnage (Mt)	Grade (%TGC)	Contained graphite (Mt)						
Merelani-Arusha Mineral Resource estimate >5% TGC ¹									
Total	17.7	6.5	1.2						
Epanko Mineral Resource estimate >5% TGC ²									
Total (Meas, Ind, Inf)	113.3	7.2	8.2						

Epanko Ore Reserve ³									
Proven	5.7	8.4	0.5						
Probable	5.9	8.2	0.5						
Total	11.7	8.3	1.0						

1. Refer to ASX announcement "Merelani Upgrade Paves Way for PFS", 8 September 2015 2. Refer to ASX announcement "Epanko Mineral Resource Upgrade", 31 March 2017 3. Refer to ASX announcement "Updated Bankable Feasibility Study", 21 June 2017

Epanko's key attribute is its high carbon concentrates through simple flotation requiring less downstream processing due to lower impurities.

EcoGraf confirms that it is not aware of any new information or data that materially affects the information included in this presentation. All material assumptions and technical parameters underpinning the estimates in those releases continue to apply and have not materially changed.

Epanko Resource supports future expansion to meet growing battery demand with high carbon concentrates

- Large resource base 113Mt $\langle \rangle$
- High carbon concentrates grade 96-98%C
- Low strip ratios 0.4:1
- **High Processing Recoveries 94.7%**
- **Exceptional Geology**
- **Superior Performance**

Downstream battery anode materials



UPGRADE



HF*free*[™] Battery **Anode Material**

KEY ACTIVITIES



Develop product qualification

Formalise strategic partnerships for global expansion



Identify development site locations in North America and Europe

Advance development of coatings partnership for European, North American and Asian markets

GLOBAL EXPANSION DRIVEN BY EV DEMAND AND NEW LEGISLATION

Increased requirement for new supply of battery anode material following US Mineral Security Partnership (June 2022) and Inflation Reduction Act (August 2022)

- Qualification facility fully funded and collaboration with ongoing product samples with major Government research facility
- Engineering design to support development of multiple production facilities in key global battery centres
- Partnership approach for European, North American and Asia locations
- Australian Government support for development through Major Project status, Project of State Significance status and conditional approval for US\$40m debt financing

The new state-of-the-art processing facilities will manufacture HFfree **BAM for the global** lithium-ion battery markets



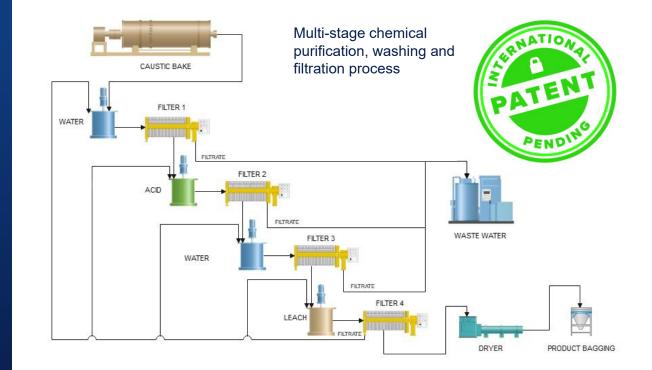


EcoGraf's vision is to be a world leader in the supply of high performance, sustainably produced battery anode material for electric vehicles

Unique and environmentally attractive processing technology ^[3] EcoGraf

Proprietary purification process provides cost competitiveness to existing materials

- **1** Eco-friendly + cost effective No toxic hydrofluoric (HF) acid
- 2 High Purity Battery Anode Material >99.95% achieved
- 3 >60% yield for maximum efficiency
- 4 75% water reused in operations
- Patent protected International Examining Authority deems all 25 patent claims novel and inventive



EcoGraf **HFFree**[™] = Purification process eliminates Hydrofluoric (HF) Acid

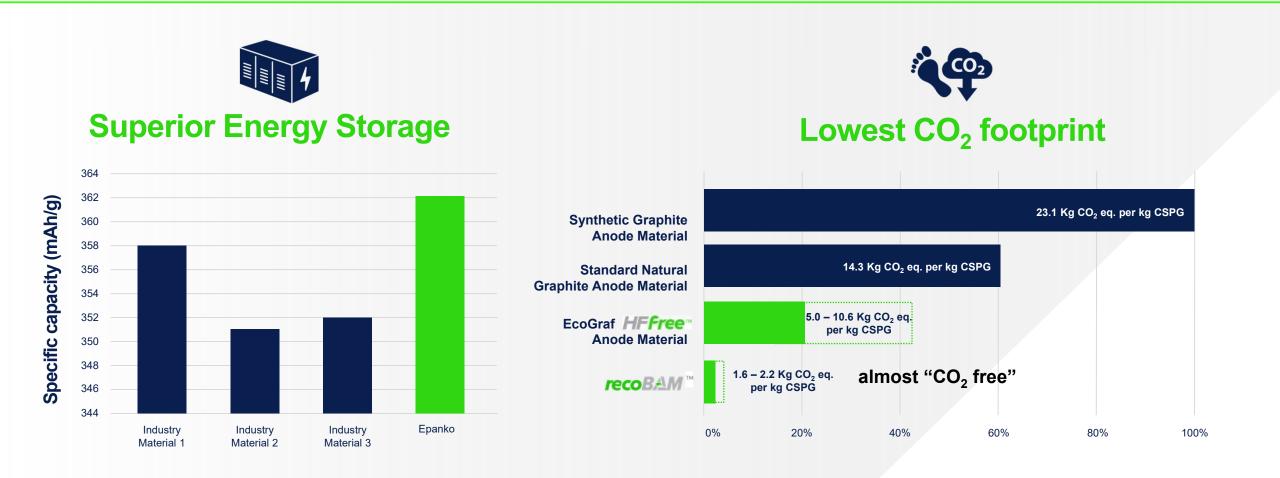


PROCESSING FACILITY FLOW DIAGRAM

Our development history



			PRODUC AND END COMMEN	OORSEM ICES			•	Feasibility and en studies completed EcoGraf™ facility	I on A	Asian	Major Proje Approved b Governmer	y Austra nt	alian	
		SEP	EcoGraf™ process developed in Australia and Germany		JUN	JUN ● Engineering study completed on Australian EcoGraf™ facility		AUG 🔵	Industrial Site in Sweden International Patent Examiner Confirms					
AUG 🔵	Battery graphite scoping study completed	DEC	 Preliminary completed provisional 	EcoGraf	тм	ly NOV		EcoGraf™ feedsto benchmarking pro		n NOV	Process No POSCO an Anode Mate	d EcoG	raf enter into Battery	
	2015	2016	2017	7		2018		2019		2020	2021		2022	
	FEB	 20 tonne natural t graphite bulk sam battery material to 	nple	JAN	0	German pilot plant ptimisation progra ommenced		JAN	•	Technical cooperatio commenced with Fut Battery Industries CF	ure	JAN	 Approvals Submi Construction of H Facility 	
	SEP	 Battery graphite f engineering studi with GR Engineer 	es commenced	ост	а	Serman optimisation nd feedstock testi ompleted		MAY	•	EcoGraf™ provisiona patent lodged for rec applications		FEB	 Australian Gove Conditionally Ap US\$40M Expans 	proves
	NOV	 Battery graphite produced in comm facility in Asia 	nercial	NOV	ir	coGraf™ nternational patent odged	t	JUN	•	Offtake signed with Thyssenkrupp for EcoGraf™ SpG and	fines	JUN	 German Resear Recycled Graph Performance 	
								SEP	•	EcoGraf Secures WA Government Support 6.7ha Site				
								ОСТ	•	Strategic Agreement Korean Battery Recy				



EcoGraf

EcoGraf HFfree[™] anode material delivers improved battery performance and significantly lower CO₂ footprint

Global developments to capture regionalised demand



EcoGraf

Full cycle active anode recovery



EcoGraf Anode Material Recycling

RECYCLE

KEY ACTIVITIES



Ongoing testing with EV and battery manufacturers

Establish pilot plant for product development and qualification processes

MARKET OVERVIEW



Battery anode materials are currently not recovered



Anode material which is a waste product generated from each stage of battery anode manufacturing, cell manufacturing and battery testing

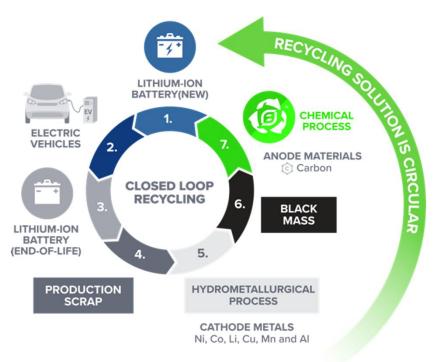


Anode material remaining after hydrometallurgical processes have recovered the high value cathode metals from end-of-life lithium-ion batteries

EU legislation requires increasing battery recycling



EcoGraf HF*free*[™] purification supports closed-loop recycling. Providing customers lower battery costs and CO₂ emissions

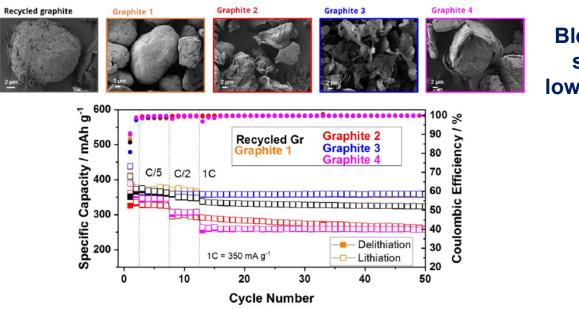


Recycled anode material performance & recognition



HELMHOLTZ - INSTITUTE : EIT award winning German research program confirms RecoBAM[™] matches the electrochemical performance of newly manufactured commercial battery graphite

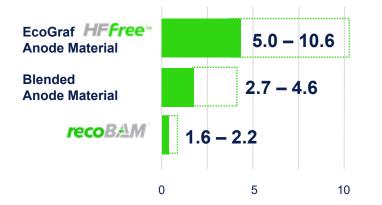




Electrode contains: 95% recycled graphite(+3% SBR, 1% CMC, 1% C45)

Blending (2:1) significantly lowers the CO₂

Global Warming Potential Kg CO₂ eq. per kg CSPG



Product development



Innovation of new products: graphite is the key raw material to decarbonise the economy



Investment highlights





Integrated value chain



Near term project catalysts



Environmentally attractive processing



Global footprint to capture regional benefits





Progressive development and innovation

Supported with long standing partnerships



FINANCING AND GOVERNMENT SUPPORT



MEMBERSHIPS AND AFFILIATIONS



🔁 EcoGraf

EcoGraf value proposition

🔁 EcoGraf

PRODUCT QUALITY

🧭 PROCESSING TECHNOLOGY

PRODUCT CONSISTENCY





Demonstrated superior performance of Tanzanian natural graphite through mechanical shaping, purification and electrochemical testing

Independent electrochemical testing by major anode producer confirms Epanko graphite outperforms existing battery anode material from China

Patent pending EcoGraf HFfree[™] purification process

New international standard flake graphite ore processing, mechanical shaping and purification facilities that satisfy production performance testing by independent engineers appointed by lenders

Independent ISO compliant Life Cycle Analysis demonstrates reduction of >92% of existing CO_2 footprint through HFfree purification, hydropower and EcoGraf recycling

Equator Principles Compliance, meeting International Finance Corporation Performance Standards and World Bank Group Environmental, Health and Safety Guidelines

Capability to produce variable product sizes (typical d50 of 16 micron and 10 micron) for alternative space and energy density specifications

Optimised mine to market supply chain, with Tanzanian logistics hub supporting localised production facilities in Australasia, Europe and North America

Cost savings though elimination of environmentally unsustainable hydrofluoric acid, use of clean, renewable energy, centralised transport logistics and HFfree anode material recycling to drive down cradle-to-grave operating costs

The future is electric

ASX: EGR FSE: FMK OTCQX: ECGFF



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