

Black Rock Mining Mahenge Graphite Mine

Simply Better Graphite: Investor Update

Africa Down Under, Perth

September 2024



BLACK ROCK
MINING LIMITED

Important notices

This presentation has been prepared by Black Rock Mining Limited (Black Rock or the Company) and has been approved by the Board of Black Rock.

The release, publication or distribution of this presentation in certain jurisdictions may be restricted by law and therefore persons in such jurisdictions into which this presentation is released, published or distributed should inform themselves about and observe such restrictions.

This presentation is for informational purposes only and does not constitute an offer to sell, or solicitation 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. In providing this presentation Black Rock has not considered the financial position or needs of the recipient. Persons needing advice should consult their stockbroker, bank manager, solicitor, attorney, accountant or other independent financial and legal advisors.

Competent Person(s) Statement

The information in this report that relates to estimates of Mineral Resources and Ore Reserves has been extracted from the Company's ASX announcement released on 3 February 2022 titled "BKT Confirms 25% increase in Measured Resources." The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement, and that all material assumptions and technical parameters underpinning the estimates of Mineral Resources or Ore Reserves in the original market announcement continue to apply and have not materially changed.

Production Target

The information in this report that relates to a production target, or forecast financial information derived from a production target has been extracted from the Company's ASX announcement released on 10 October 2022 titled "Black Rock Completes FEED and eDFS Update". The Company confirms that all material assumptions underpinning the production target, or forecast financial information derived from the production target, in the original announcement continue to apply and have not materially changed.

Forward Looking Statements

Various statements in this presentation 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. Words such as "anticipates", "expects", "intends", "plans", "believes", "seeks", "estimates" and similar expressions are intended to identify forward-looking statements. Black Rock cautions shareholders and prospective shareholders not to place undue reliance on these forward looking statements, which reflect the view of Black Rock only as of the date of this presentation. The forward looking statements made in this presentation relate only to events as of the date on which the statements are made.



Black Rock at a glance

Premium graphite player

Developing the Mahenge graphite project in Tanzania:

- Tier 1 scale (2nd largest reserve globally)
- Forecast first quartile costs due to hydro-dominated grid
- Very low carbon-footprint products (decarbonisation)

Backed by largest ex-China anode producer POSCO:

- Strategic Alliance: Black Rock major shareholder at 10.1%
- Cornerstone offtake partner (3 offtake agreements)¹
- **Providing US\$50m in funding – now approved¹**
- Exploring other opportunities to collaborate

All key Govt agreements and permits in place

Debt approvals in place

- US\$153m in debt approvals with DBSA, IDC and CRDB²
- Completion of loan documentation imminent

Substantial upside if Black Rock team can execute:

- Mahenge NPV₁₀ US\$1.4bn (A\$2.1bn)³

¹Slide 21 provides more details of Black Rock's Strategic Alliance with POSCO.

²DBSA & IDC are both wholly-owned subsidiaries of the South African Govt. See ASX release 18 March 2024.

³Project metrics updated Oct 2022. NPV post-tax, post Govt 16% free carry. More detail on Slide 10.

Capital structure

ASX ticker	BKT
Share price (28 August 2024)	\$0.053
Shares on issue	1,252.0m
Options and performance rights	71.0m
Market capitalisation (undiluted) (@\$0.053)	A\$66m
Cash (30 Jun 2024)	A\$9.1m
Debt (30 Jun 2024)	Nil

Major shareholders⁴

Copulos Group	10.9%
POSCO Group	10.1%



⁴As per latest substantial interest notices

Black Rock team

Board of Directors



Richard Crookes, Non-exec Chairman: Geologist with over 30 years executive experience in the resources and finance industries; raised capital and financed a number of projects globally, including across Africa. Previous roles include Investment Director at Mining PE Fund EMR Capital, Executive Director in Macquarie's Metals & Energy Capital and Chief Geologist / Mining Manager at Ernest Henry Mining.



John de Vries, MD & CEO: Mining Engineer with over 40 years experience in mine development and operations; professional experience spans Africa, the Pacific, the former Soviet Union, North and South America and Australia. Previously General Manager Technical Services with St Barbara, integral in the 2014 turnaround; earlier operational management roles at BHP Nickel West, Orica Mining Services and Western Mining Corp.



Ian Murray, Non-exec Director: Finance Executive with over 20 years corporate experience in the publicly listed resources sector; led highly successful project developments, major acquisitions, company restructures and stock exchange listings. Previous roles include CEO of Gold Road Resources, CEO and CFO of DRDGold Ltd, Director of Rand Refinery Ltd and GoldMoney.com, and senior positions at KPMG, PwC and Bioclones.

Management



Stuart McIntyre, GM Corporate Development: Mining analyst with over 15 years experience. Previous roles include sell-side mining analyst for Royal Bank of Canada and Blue Ocean Equities and associate at Cutfield Freeman, a mining-focused corporate finance boutique in London. Stuart has degrees in Civil Engineering and Commerce from the University of Sydney and a diploma of corporate finance from the London Business School.



Daniel Pantany, GM Engineering & Technical: Civil Engineer with over 25 years experience in mining project development in Africa and Australia across a broad range of project delivery roles including EPCM, EP, and lump sum EPC contracts. His most recent position was with CPC Engineering including secondment as Project Engineering Manager for Syrah's Balama project. Black Rock's Study Manager for Mahenge since 2018.



Paul Sims, CFO: A highly credentialled finance resources executive with over 25 years of executive experience in the resources industry, spanning both commercial and financial roles at BHP, Western Mining Corp, Minara Resources and Karara Mining. Mr Sims has extensive experience in debt finance, project management and cost control. He has a Bachelor of Business degree from Curtin University and is a Fellow of CPA Australia.



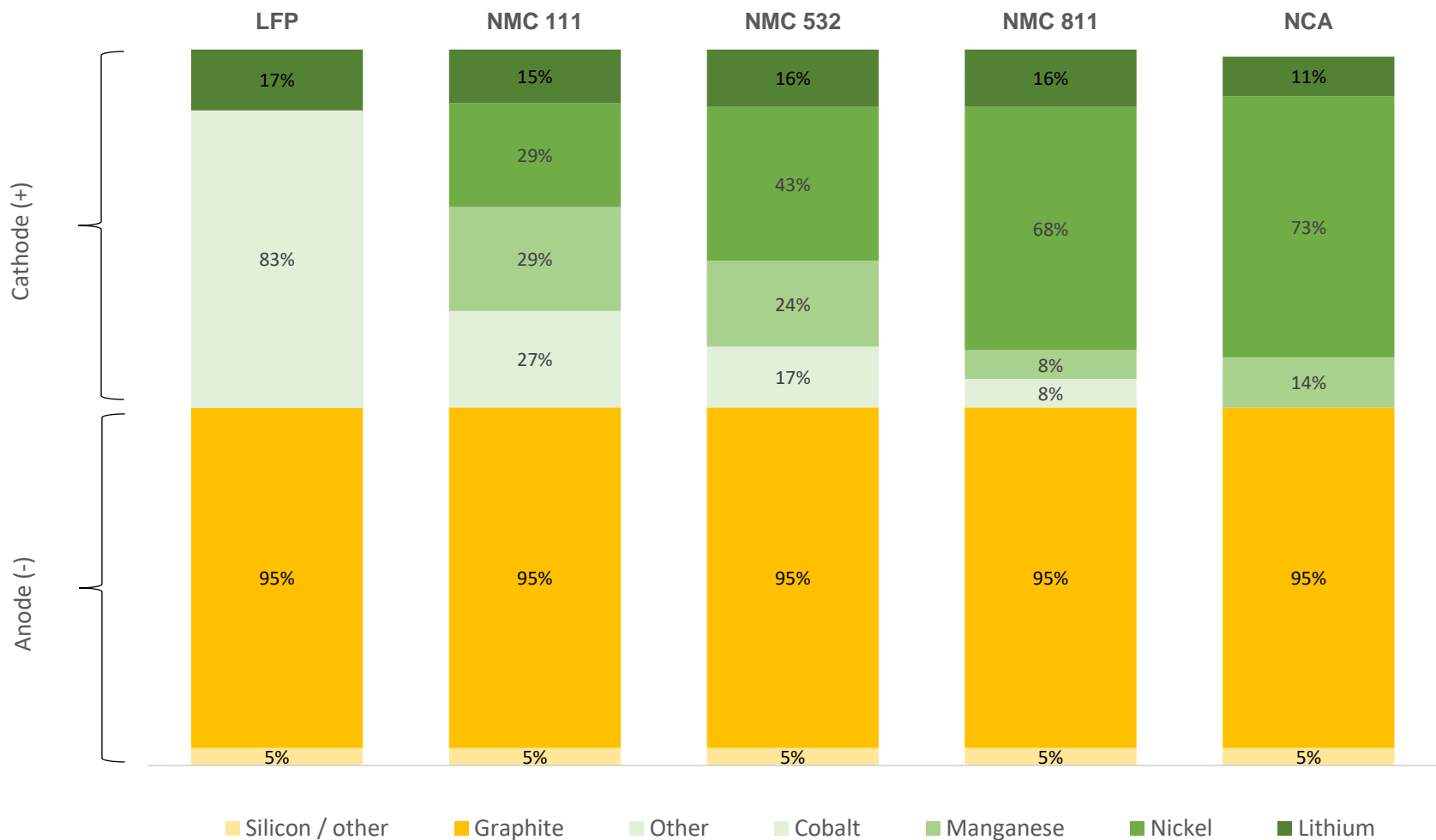
Rae Wyatt, GM People, Culture & Sustainability: Experienced HR professional with 15 years experience in the resources industry, specialising in project development and stakeholder engagement with communities. Ms Wyatt has most recently held senior roles at Clean TeQ (Sunrise Metals), Gold Road and Macmahons. She has a degree in commerce from Curtin University in HR and Industrial Relations and is a graduate of AICD.

Graphite in batteries

Li-ion batteries typically contain ~7-10x more graphite than lithium.

LFP batteries expected to be 50% of global passenger EV sales within 2 years*

Graphite is the dominant anode material, regardless of battery chemistry

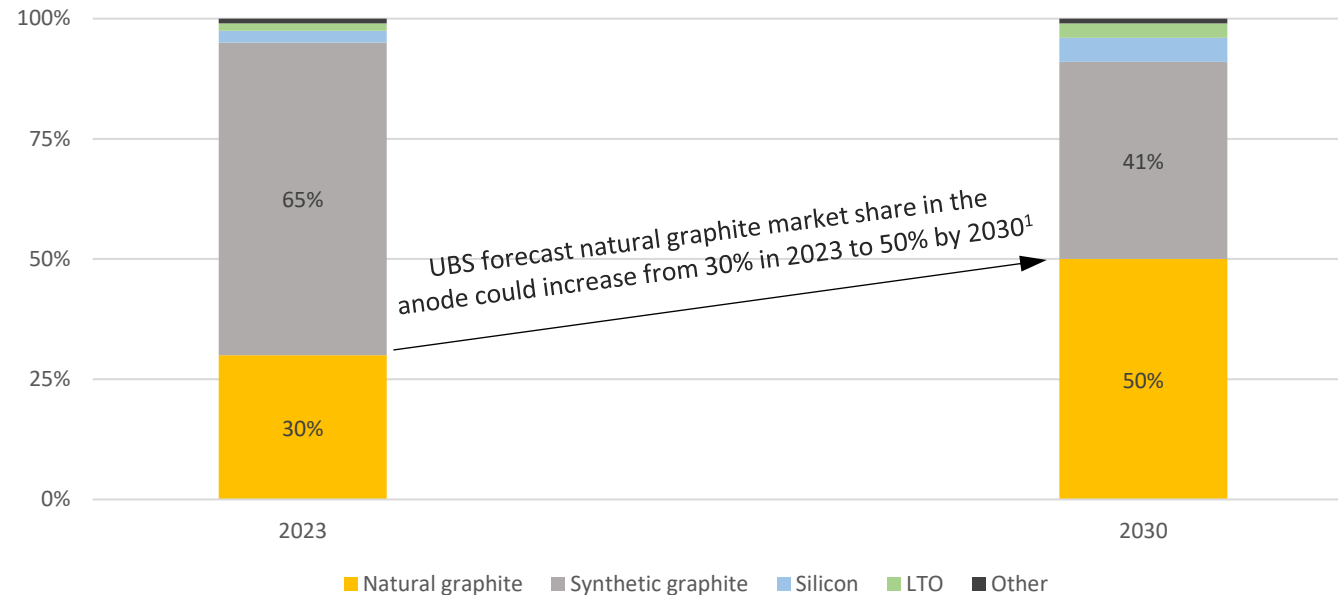


Source: Pallinghurst-Traxys battery analysis. %s represent the proportions of cathode and anode in each battery respectively. NCA batteries contain 2% aluminium (not shown)
*Bloomberg New Energy Finance Report, 12 June 2024:
<https://about.bnef.com/blog/electric-vehicle-sales-headed-for-record-year-but-growth-slowdown-puts-climate-targets-at-risk-according-to-bloombergnef-report/>

More natural graphite in batteries

The use of natural graphite in batteries has potential to grow from 30% of the anode to 50% by 2030

Growing importance of natural graphite in batteries



In late Sept 2023, UBS published a research report on natural graphite¹:

- **Natural graphite looks to be preferred in low-cost lower-carbon profile LFP batteries**
- Natural graphite market share in the anode could increase from 30% today to 50% by 2030
- Forecasting a 6x growth in natural graphite demand by 2030 to 6.3mt

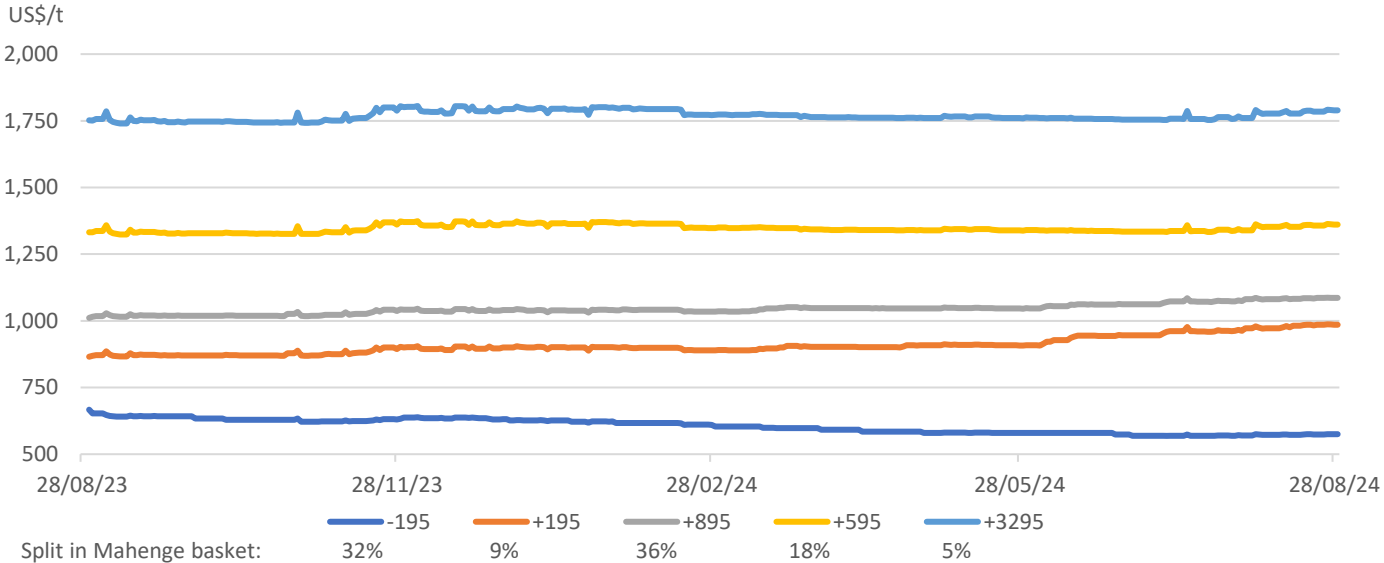
This forecast would require ~5mt of new natural graphite supply by 2030 or around 14 new mines the size of Syrah's Balama mine (based on a nameplate capacity of ~350ktpa)².

Given the significant barriers to entry for new natural graphite supply, Black Rock believes this scenario would likely lead to substantial supply deficits and much higher graphite prices.

Healthy margins at spot prices

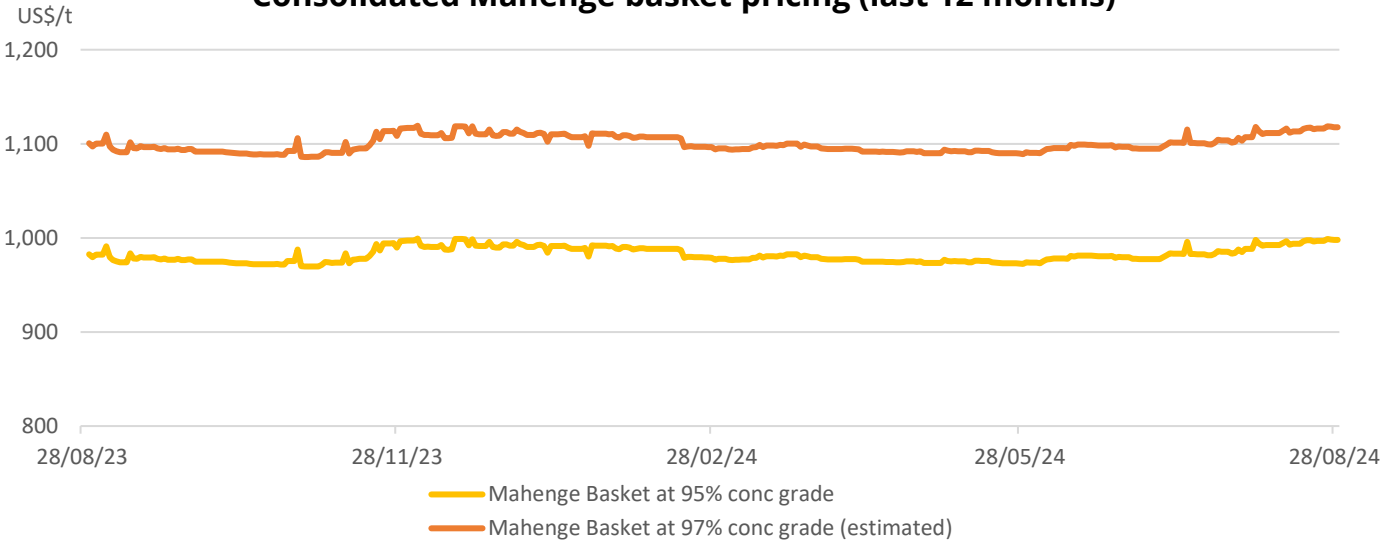
Current graphite prices support healthy potential margins at Mahenge at forecast AISC of US\$518/t

Graphite pricing by Mahenge product (last 12 months)



Source: RefWin, Asian Metals, ICC Sino, Black Rock Mining

Consolidated Mahenge basket pricing (last 12 months)



Source: RefWin, Asian Metals, ICC Sino, Black Rock Mining

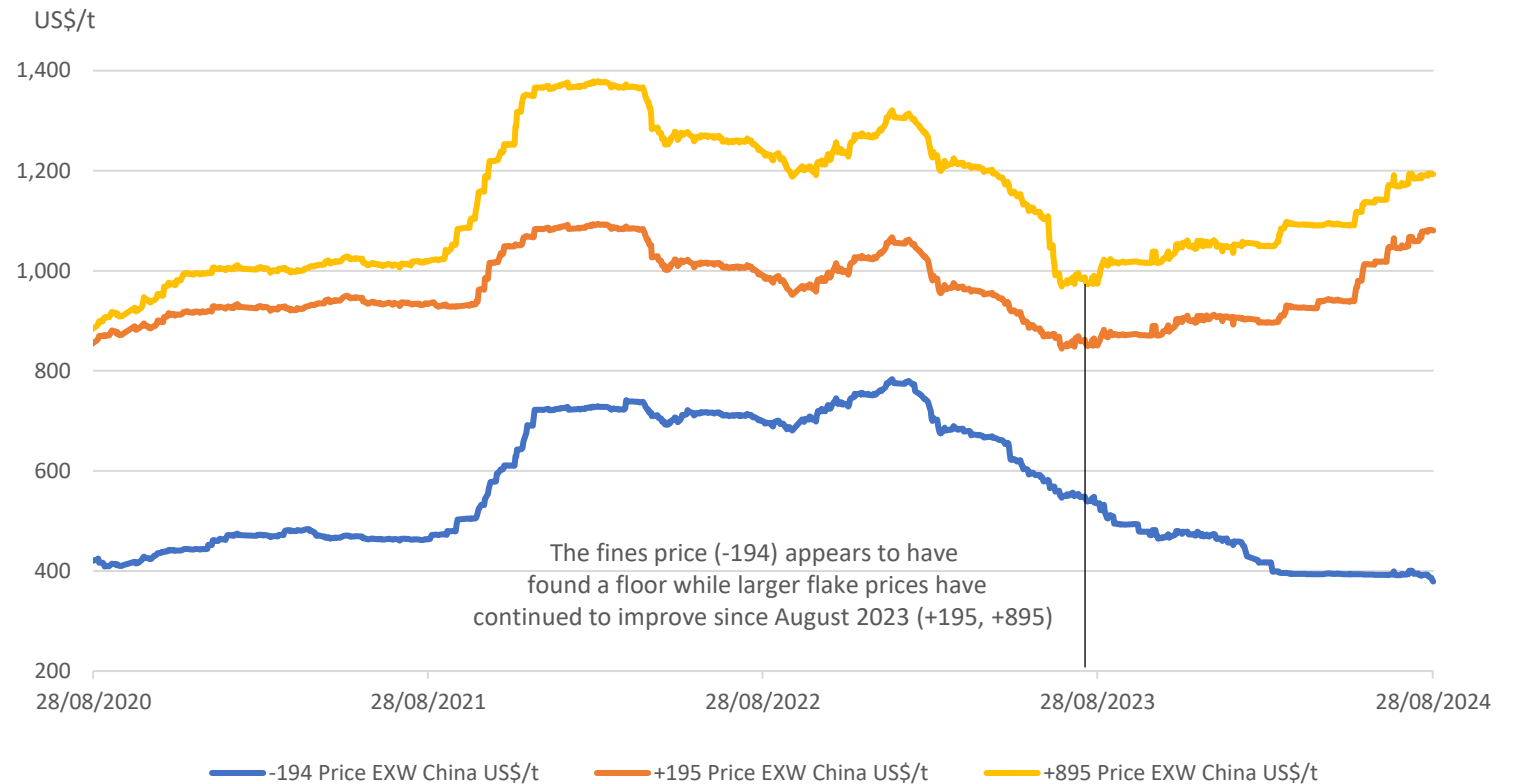


Black Rock sensitivity: 10% increase in basket price = 20% increase in unlevered NPV ⁷

Diversified revenue stream

Mahenge basket price has been relatively steady as weaker fines price has been offset by stronger large flake price

Flake graphite prices over last 4 years (Asian Metals)

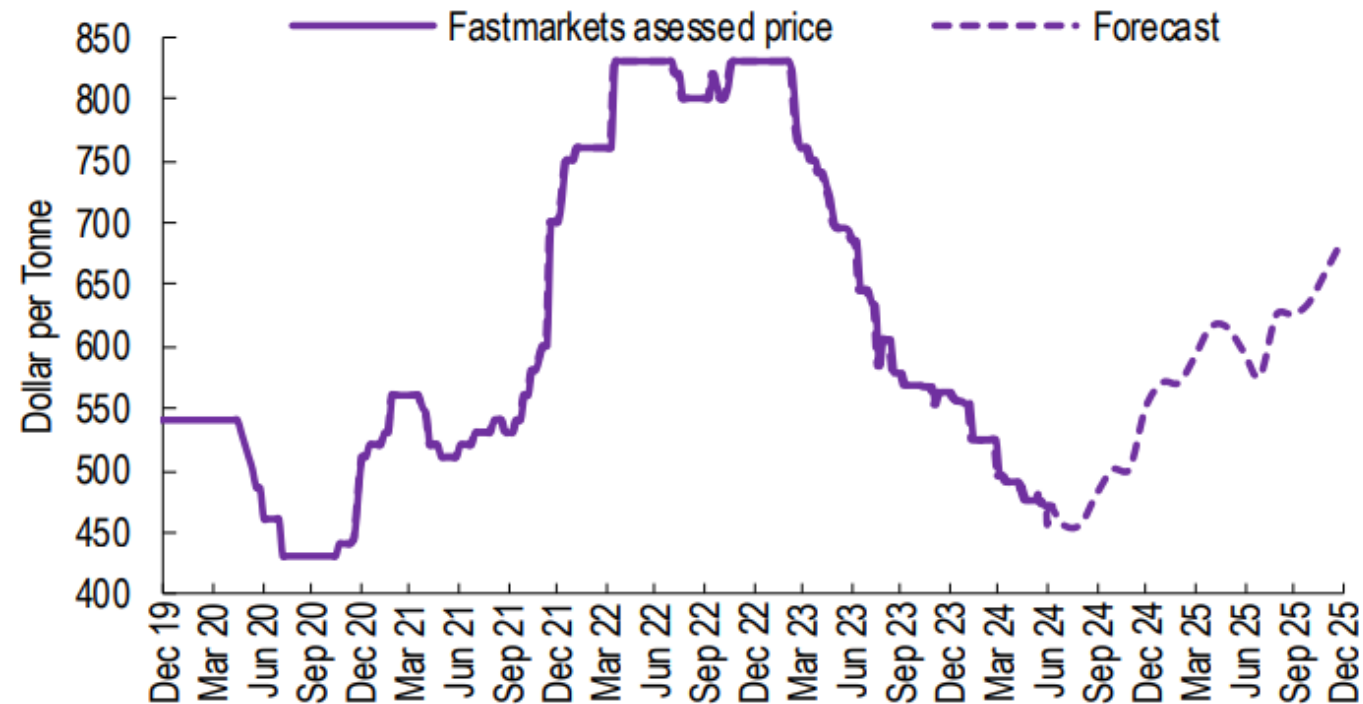


Source: Asian Metals

Fines price expected to recover

Fastmarkets forecasting a ~50% increase in the -194 China price over the next ~18 months to ~US\$680/t

Graphite Flake, 94% C, -100 Mesh, FOB Qingdao, China



Source: Fastmarkets BRM Lithium & Graphite Short-term Forecast Tracker, 11 June 2024

Based on Benchmark Mineral Intelligence data, Black Rock estimates >50% of global natural graphite mine supply is breakeven/loss making at current prices, which is clearly not sustainable

In addition, there is growing evidence of premium prices for ex China fines due to new US and EU restrictions and US 25% tariffs on graphite sourced from China

A snapshot of the Mahenge Graphite Project

Simple open pit mine development with outstanding forecast returns¹

US\$1.4bn

NPV_{10 nom} post tax, post 16% FC

36%

Post-tax, ungeared IRR

89ktpa

Module 1 production* (1mtpa)

US\$231m

Module 1 capex + power line*

347ktpa

Steady production (4 x 1Mtpa)

95 – 99%+ TGC purity
59% +80 mesh, 41% -80
Concentrate product

US\$1,709/t

Basket graphite price***

US\$518/t

All-In-Sustaining-Cost**

26 years

Initial operating life

¹See Black Rock ASX release dated 10 October 2022, Black Rock completes FEED and eDFS Update. All technical parameters, including in the estimation of Mineral Resources or Ore Reserves, underpinning the estimates continue to apply and have not materially changed. The estimated Ore Reserves and Mineral Resources underpinning the production and financial forecasts were prepared by Competent Persons in accordance with the requirements in Appendix 5A (JORC Code).

*Includes US\$182m for Module 1 capex + US\$33m for power line + US\$16m for early works & other costs (not included in the eDFS Update). Power costs expected to be ~US8c/kWh less a meaningful rebate to recoup the costs of the power line. Forecast Capex has been classified as a Class 2 estimate with accuracy of ±10% as defined by AACE.

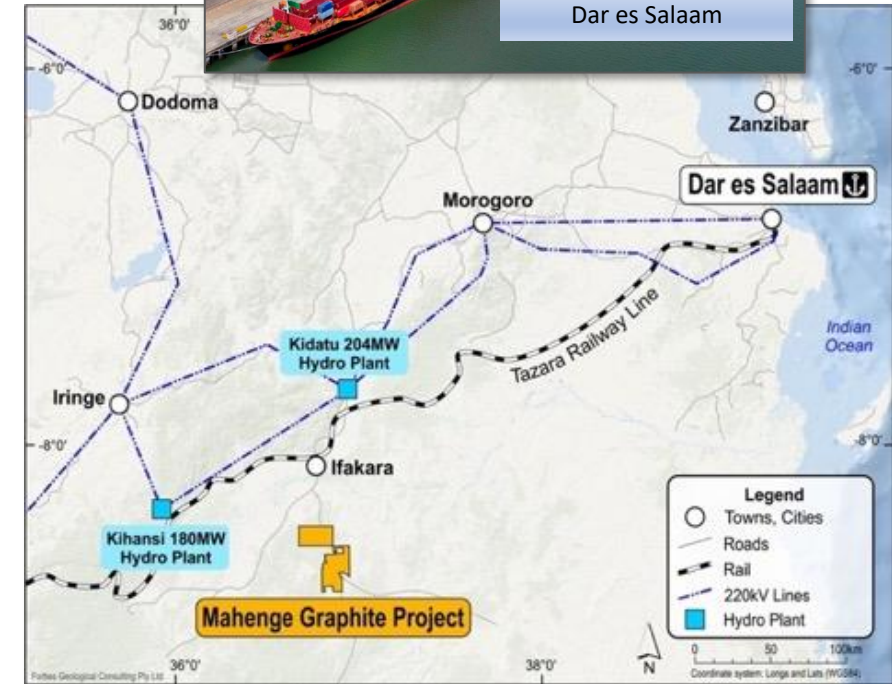
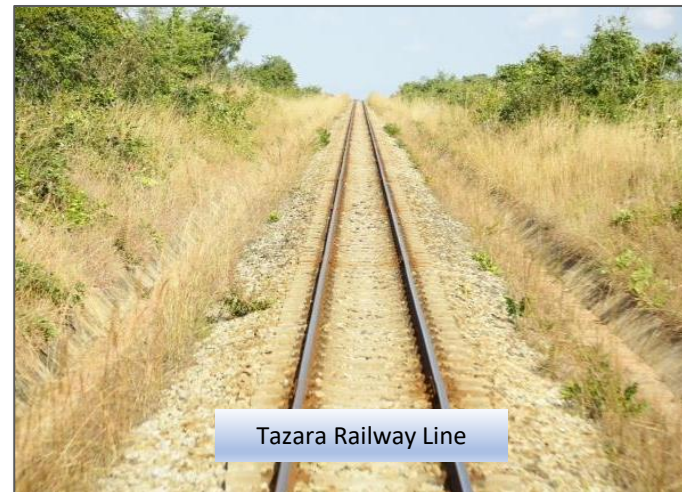
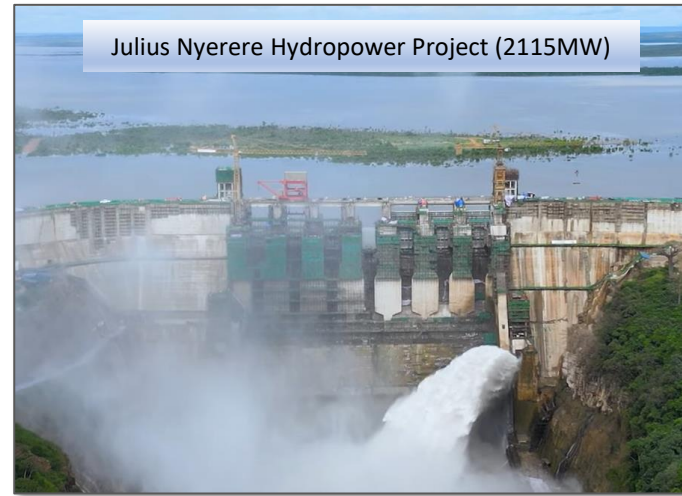
Average over first 10 years. *Expert Consensus is the average forecast from Benchmark Mineral Intelligence, Fastmarkets and Wood Mackenzie over the first 10 years.



BLACK ROCK
MINING LIMITED

Why Mahenge?

Unique competitive advantages driven by geology and substantial existing infrastructure



Geology

- ★ Mahenge's 69.6mt Reserve makes it the 2nd largest graphite Reserve in the world
- ★ Low deleterious impurities and favourable metallurgy means that Mahenge is able to produce up to 99% TGC concentrate purity, solely with conventional flotation processing

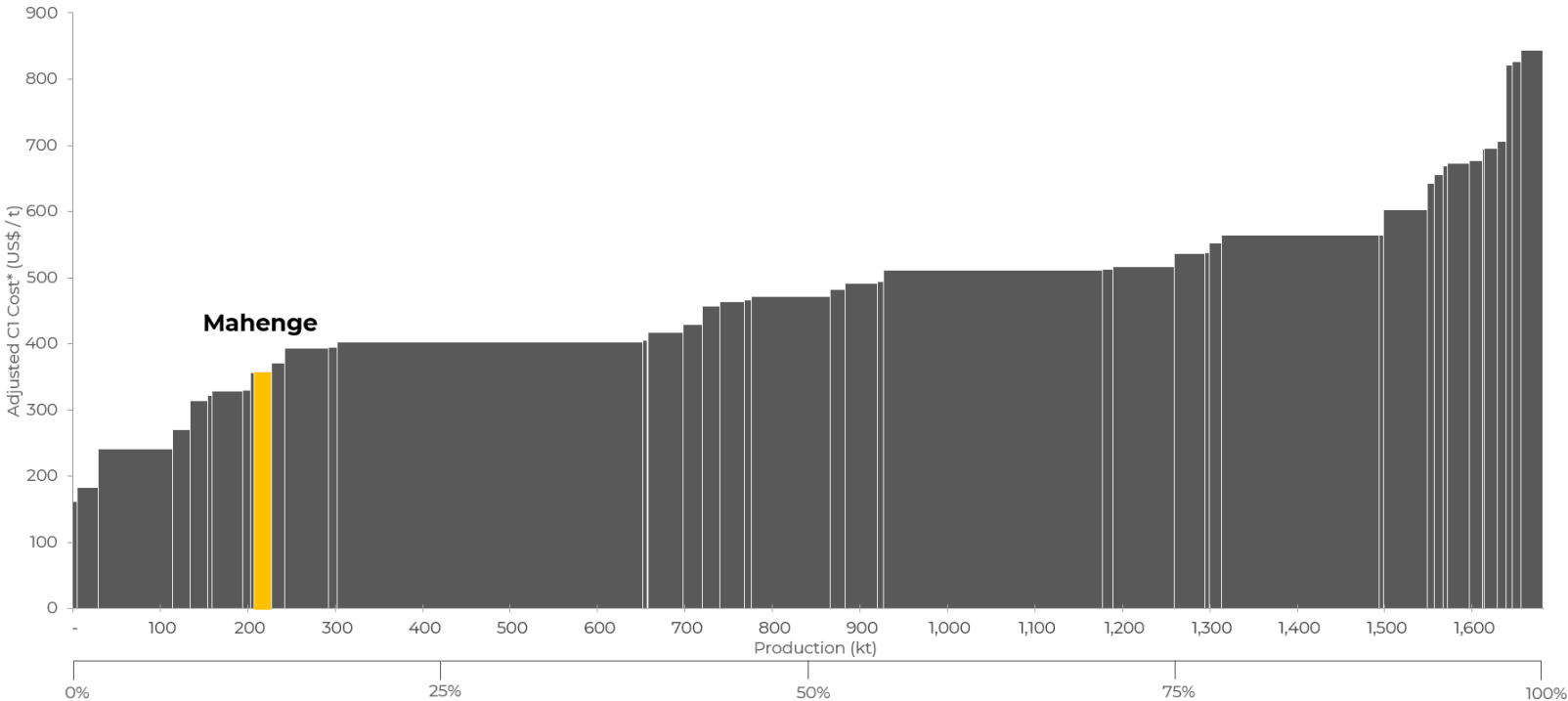
Substantial existing infrastructure

- ★ Access to key infrastructure, hydro-dominated cheap grid power, rail, airstrip, water and tailings disposal (dry stack)
- ★ Logistics advantages with processing through Dar es Salaam high volume container port

Forecast first quartile costs

First quartile assets are higher margin and more robust through the cycle

2024 Adjusted C1 Cost Curve*



Sources: Benchmark Mineral Intelligence Flake Graphite Report Q2 CY22, Black Rock Mining, Company Data

C1 Cash Costs are defined as Cash Costs excluding royalties and sustaining capex.

*C1 Costs adjusted for flake size distribution: Based on forecast pricing for 94-95% in 2024, Mahenge's average price is forecast to be US\$107/t above the peer average due to a higher proportion of large flake. Mahenge's Adjusted C1 Costs of US\$359/t are based on C1 Costs of US\$466/t less the US\$107/t for above average revenue compared to the peer group.

Ignores the benefit of Mahenge's higher purity concentrates of up to 98% which could potentially improve Black Rock's relative position by up to ~US\$40-60/t per 1% above 95% pricing.

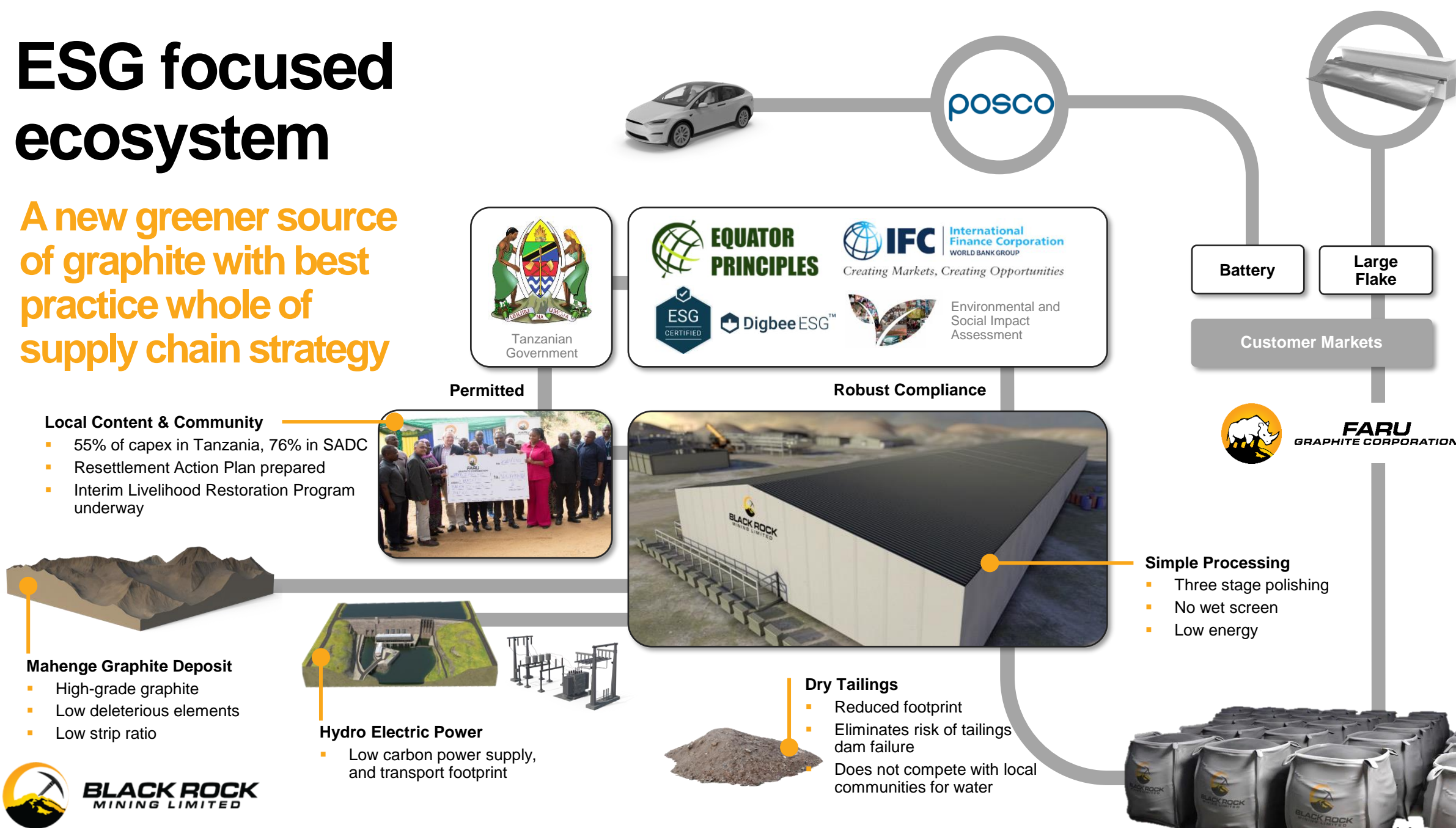
A simpler development plan

A lower risk, much lower capex pathway to cashflow than many peers

- Black Rock pursuing a simple mine only strategy initially:
 - Lower risk
 - Much lower capital intensity
- Unlike many peers, Mahenge is expected to make healthy margins at current prices due to key competitive advantages:
 - Competitively priced, hydro-dominated grid power
 - A much higher ratio of higher-value large flake
- Black Rock maintaining a disciplined approach:
 - Focused on core skill set: Mining expertise
 - Focused on part of supply chain where it has competitive advantages

ESG focused ecosystem

A new greener source of graphite with best practice whole of supply chain strategy



Local Content & Community

- 55% of capex in Tanzania, 76% in SADC
- Resettlement Action Plan prepared
- Interim Livelihood Restoration Program underway



Permitted

Robust Compliance



Simple Processing

- Three stage polishing
- No wet screen
- Low energy

Dry Tailings

- Reduced footprint
- Eliminates risk of tailings dam failure
- Does not compete with local communities for water



Hydro Electric Power

- Low carbon power supply, and transport footprint

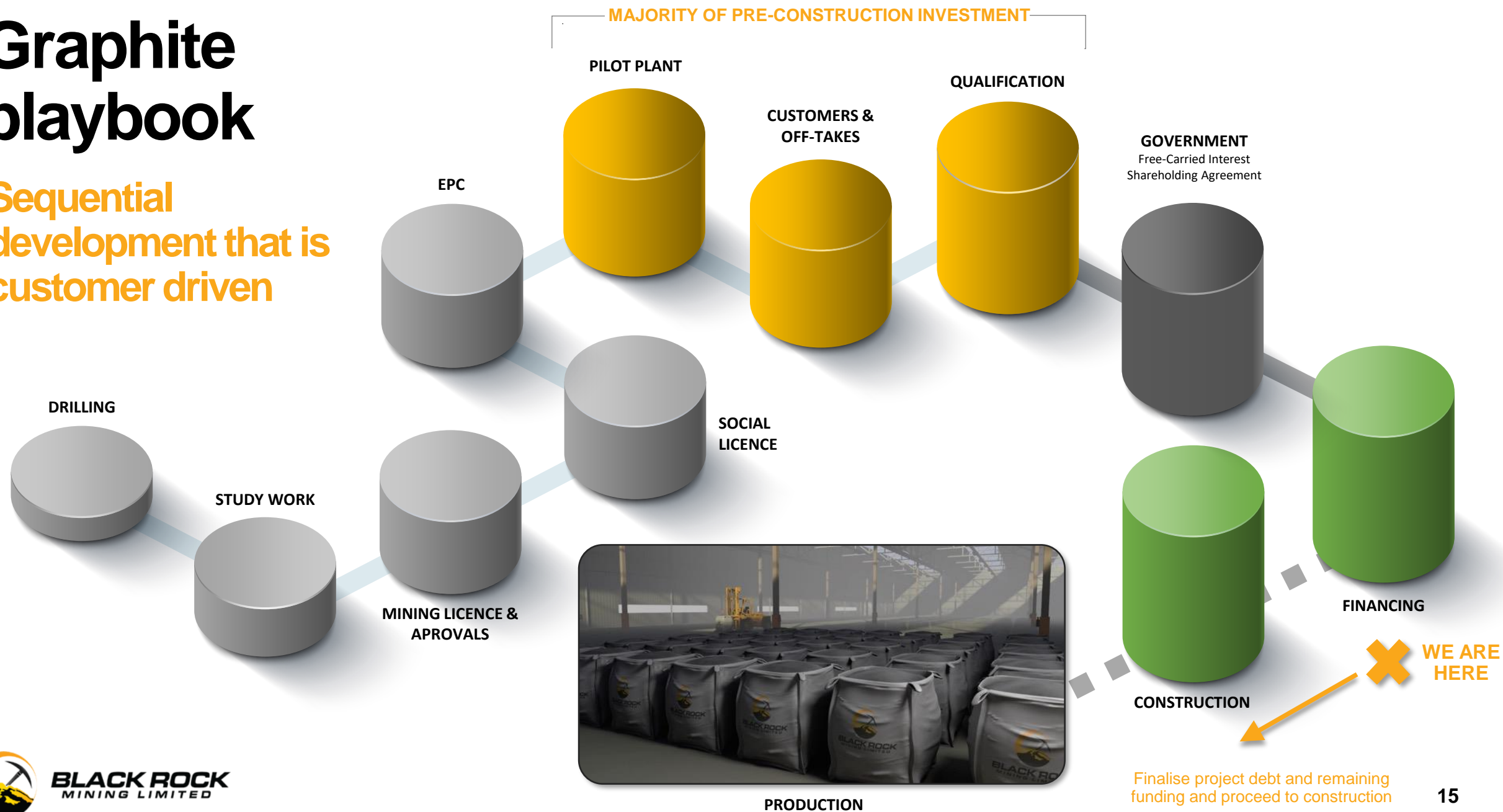


FARU
GRAPHITE CORPORATION



Graphite playbook

Sequential
development that is
customer driven

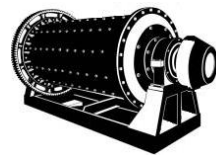


Development timetable

Completion of loan documentation imminent

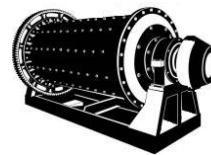
- US\$153m in debt approvals with DBSA, IDC and CRDB¹ comprising:
 - US\$113m Term Debt
 - US\$20m Working Capital Facility
 - US\$20m Cost Overrun Facility
- US\$50m from POSCO approved² (US\$40m equity + US\$10m prepay)
- Targeting first production 24 months from FID³ in CY26

Module 1
1mtpa



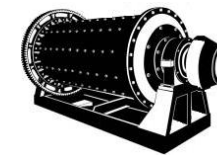
Initial Capex US\$231m⁴
Production 89ktpa+

Module 2
1mtpa



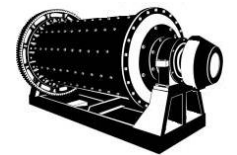
Capex US\$107m
Production 85ktpa+

Module 3
1mtpa



Capex US\$117m
Production 85ktpa+

Module 4
1mtpa



Capex US\$104m
Production 85ktpa+

¹Loan documentation underway based on ~7.5-year tenor, interest rate based on SOFR + margin. See ASX release 18 March 2024.

²Slide 21 provides more detail on Black Rock's Strategic Alliance with POSCO

³FID is Final Investment Decision. 24 months comprises 4 months of early works + 20 month construction period.

⁴Initial Capex = US\$182m for Module 1 capex + US\$33m for the power line + US\$16m for early works & other costs. More detail on Slide 10.
Initial Capex excludes financing costs, interest during construction, taxes, working capital and lender requirements (DSRA, insurance, etc)

Strong near term news flow

Several key share price catalysts expected near term

Black Rock sees a number of potential de-risking milestones due near term:

- Potential POSCO milestones:
 - Signing full-form offtake agreement ✓
 - Signing full-form prepay agreement for US\$10m ✓
 - Potential for POSCO to take up it's right to a Black Rock board seat¹
- Potential debt financing milestones:
 - US\$153m in debt approvals with DBSA, IDC and CRDB² ✓
 - Aiming to complete loan documentation near term
 - Mandate debt lead arrangers and finalise Project Debt package
- **Key near term potential share price catalysts:**
 - **Confirm POSCO approval to invest up to US\$40m in Black Rock³** ✓
 - **Bring in a partner at the project level as a less dilutive option**
 - Also assessing other options focused on minimising dilution / maximising value per share

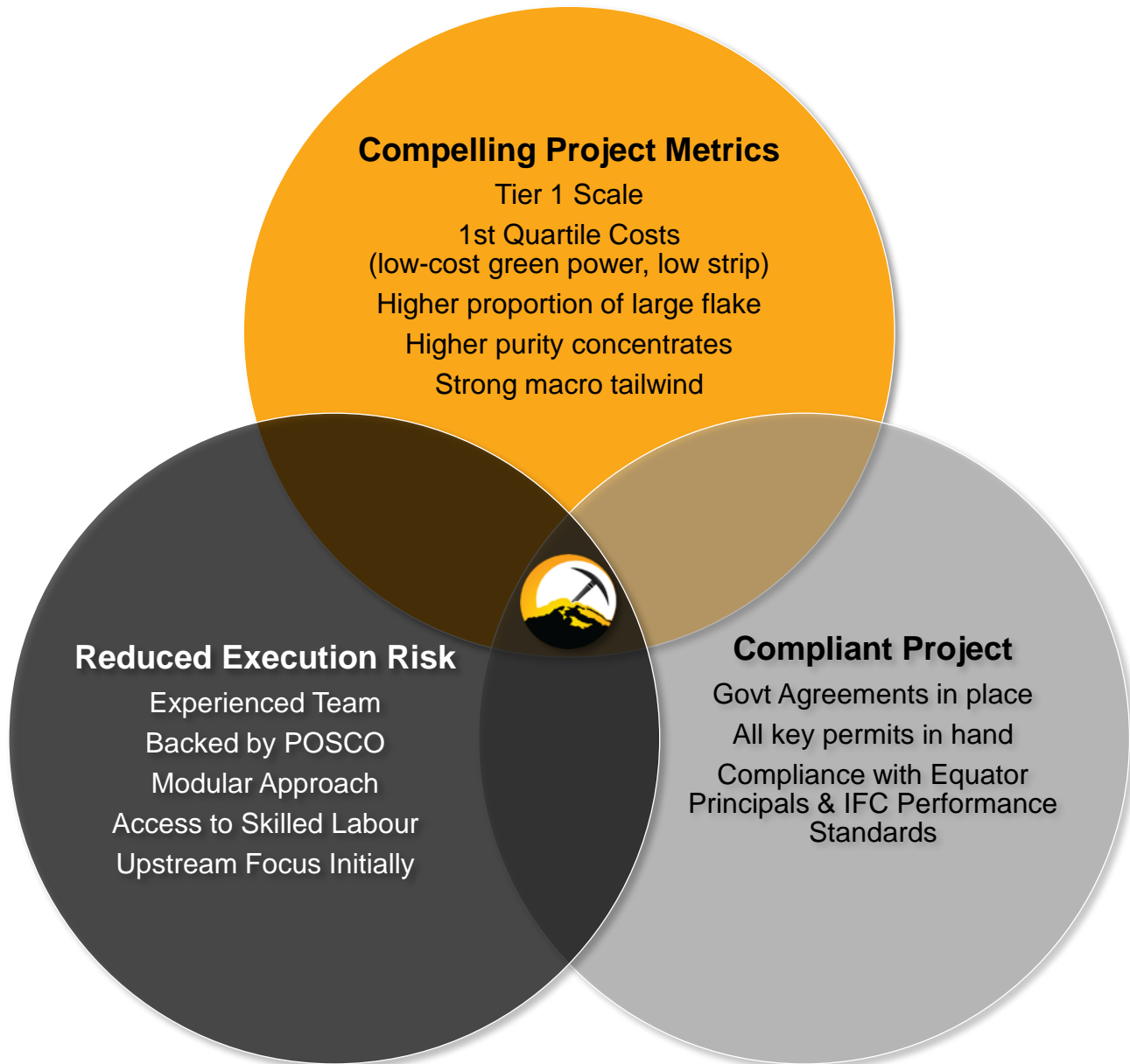
¹POSCO has a right to appoint a Black Rock director if it maintains an equity stake in Black Rock of >10% (currently 10.1%).

²DBSA & IDC are both wholly-owned subsidiaries of the South African Govt. See ASX release 18 March 2024.

³See ASX release 3 Sept 2024, POSCO Signs Binding Agreements for US\$40m investment in Black Rock. Subject to regulatory approvals and confirmation all necessary funding to build Module 1 is in place

Black Rock ready to deliver

The significant Tier 1
scale Mahenge
graphite mine into an
undersupplied and
growing market





John de Vries
Managing Director and CEO

T: +61 438 356 590
E: jdv@blackrockmining.com.au
A: Level 1, 1 Walker Avenue
West Perth WA 6005

www.blackrockmining.com.au

Richard Crookes

Chairman

E: richard.crookes@blackrockmining.com.au

Steuart McIntyre

GM Corporate Development

T: +61 413 555 609
E: sm@blackrockmining.com.au

Elvis Jurcevic

Investor Relations

T: +61 408 268 271
E: ej@blackrockmining.com.au



[blackrockmining](https://www.linkedin.com/company/blackrockmining)



[@BlackRockMining](https://twitter.com/BlackRockMining)

Appendix



BLACK ROCK
MINING LIMITED

Strategic Alliance with POSCO

Black Rock has a strong and growing relationship with POSCO



- POSCO is Black Rock major shareholder holding a 10.1% stake
- POSCO is Black Rock's cornerstone offtake partner:
 - Module 1:
 - Binding offtake agreement for fines¹ (32% of volume)
 - MOU for 6ktpa of large flake² (7% of volume)
 - Module 2:
 - Terms agreed for offtake agreement for fines³ (32% of volume)
- POSCO is providing US\$50m in development finance for Module 1:
 - US\$10m binding prepayment¹
 - US\$40m equity investment in Black Rock approved³
- Exploring other opportunities to collaborate:
 - Also exploring other opportunities to develop an IRA-compliant anode supply chain

¹Source: [29 May 2023, Black Rock Signs Binding Offtake and US\\$10M Prepayment Agreements With POSCO](#)

²Source: [23 May 2023, Black Rock Expands Offtake Partnership with POSCO](#)

³Source: See ASX release 3 Sept 2024, POSCO Signs Binding Agreements for US\$40m investment in Black Rock. Subject to regulatory approvals and confirmation all necessary funding to build Module 1 is in place. Photo from POSCO signing ceremony on 3 Sept 2024.

Tanzania: An improving jurisdiction for investment



- Moody's recently upgraded Tanzania to a B2 Positive due to reduced political risk and structural reform agenda¹
- Equinor/Shell/Exxon Mobil recently struck a deal for the development of an LNG terminal in Tanzania expected to cost tens of billions of dollars²
- BHP has committed to investing US\$100m in the Kabanga nickel project
- Since Tanzania launched the Development Vision in 2020 to attract investment, the mining sector's contribution to GDP has grown from 3.5% to 9.7%³
- Tanzania has now agreed 11 framework agreements with foreign mining companies and is negotiating an additional 5 agreements⁴

¹Source: <https://www.thecitizen.co.tz/tanzania/news/national/moody-s-gives-tanzania-favourable-credit-rating--4206196>

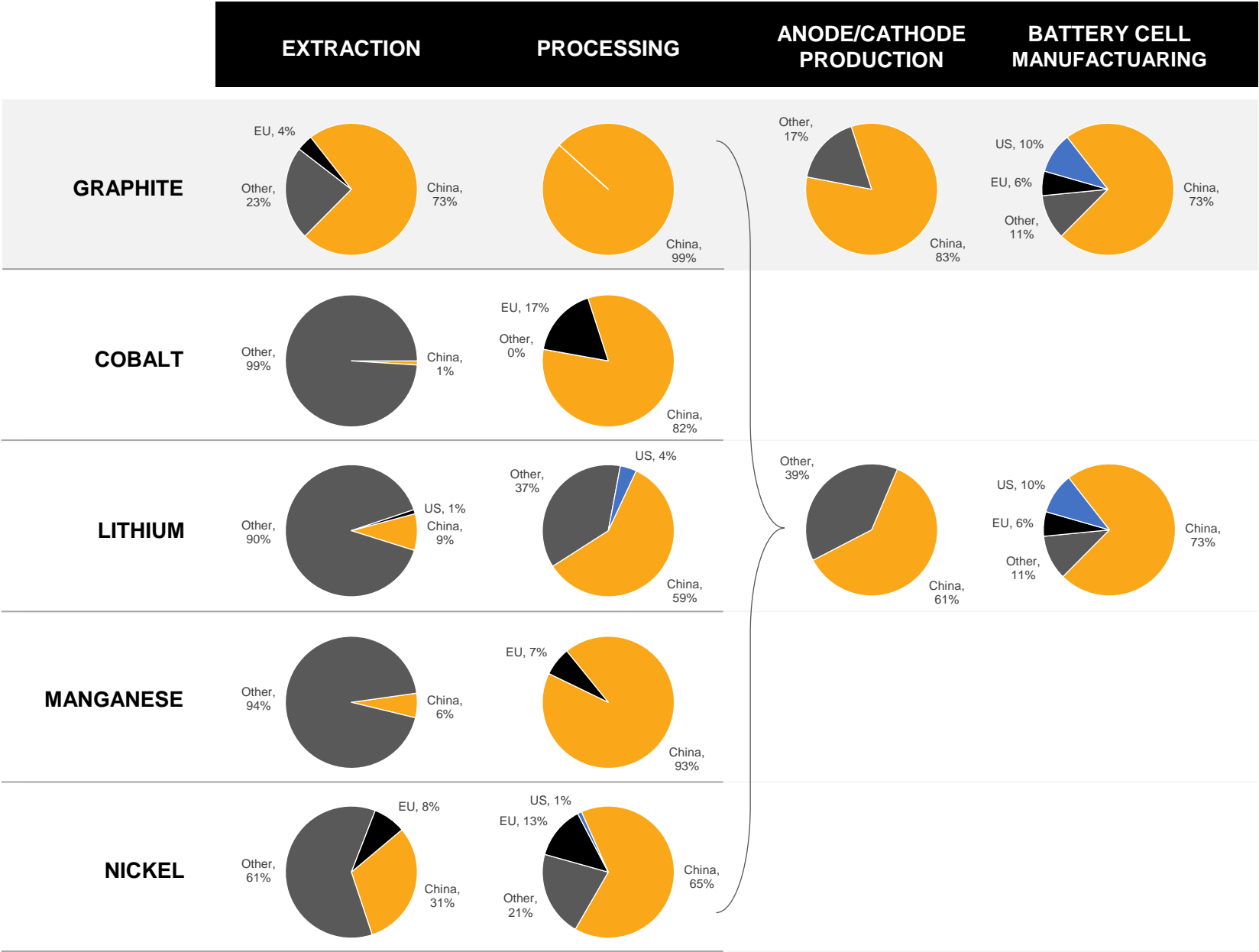
²Source: <https://www.reuters.com/business/energy/equinor-shell-exxon-agree-lng-project-with-tanzania-2023-05-19/>

³Source: <https://www.thecitizen.co.tz/tanzania/news/national/how-government-plans-to-boost-mining-s-gdp-contribution-to-10-percent-before-2025--4245214>

⁴Source: <https://dailynews.co.tz/why-mining-investment-forum-crucial-for-tz/>

Li-ion battery raw materials supply chain by country

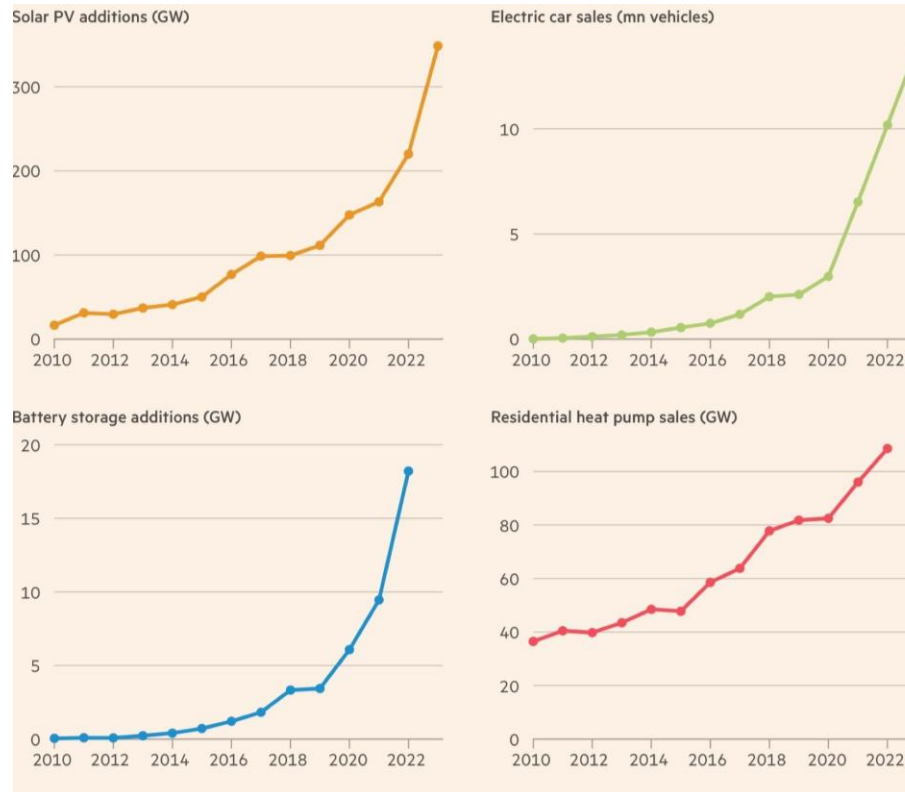
Graphite supply chain for batteries is more dependent on China than any other material



Energy Minerals increasingly attractive

Energy transition is a multi-decade thematic at a critical inflection point on the S-curve

- Several new energy components at “hockey stick” moment (see charts below)
- Graphite has a strong demand outlook
- But graphite is also opaque and dominated by China which makes new supply difficult to bring into production
- A very similar scenario to lithium ~5 years ago



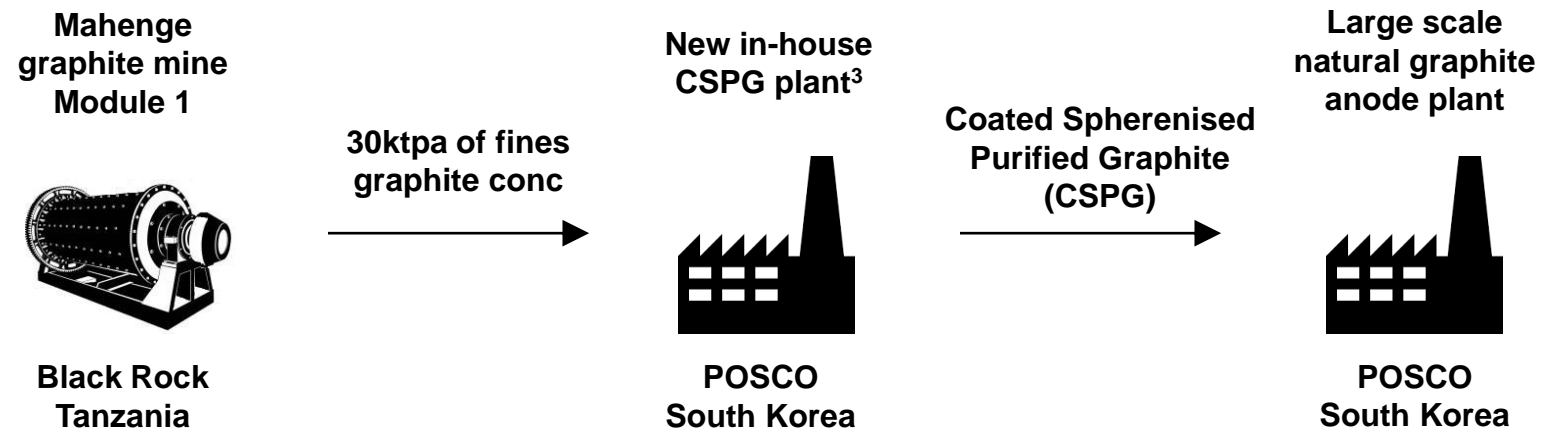
- Global EV sales +23% to Sept 2023¹
- Forecast global GDP growth of 3% in 2023²

Working towards an IRA-compliant supply chain

Black Rock is collaborating with POSCO to establish a new anode supply chain

The Inflation Reduction Act (IRA)¹ in the US provides a Clean Vehicle Credit under Section 30D² for qualifying vehicles for up to US\$7,500 per vehicle

- *Starting in 2024, qualifying vehicles cannot have battery components manufactured or assembled by a foreign entity of concern*
- *Starting in 2027, qualifying vehicles' batteries cannot contain graphite extracted, processed, or recycled by a foreign entity of concern*



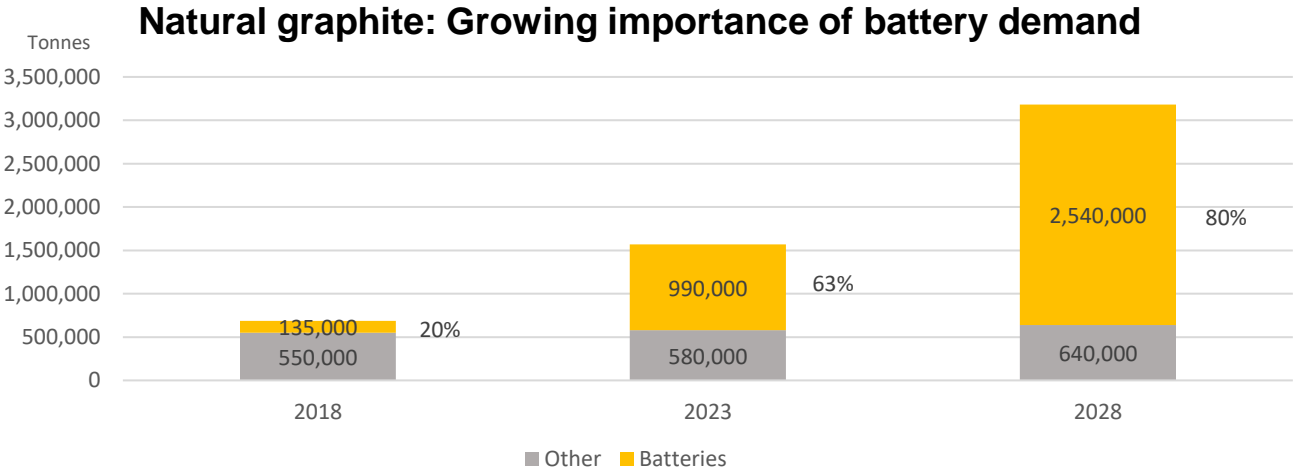
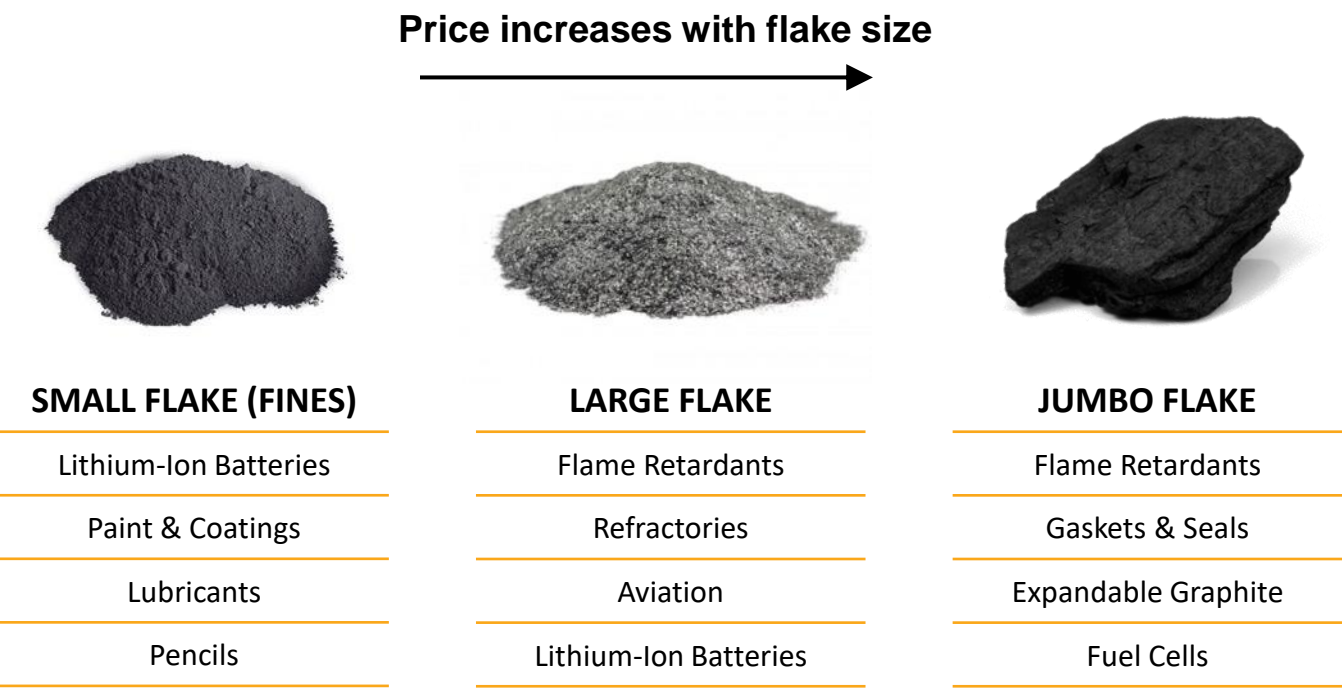
¹Source: <https://www.whitehouse.gov/wp-content/uploads/2022/12/Inflation-Reduction-Act-Guidebook.pdf> (Jan 2023, Version 2)

²Source: <https://www.federalregister.gov/documents/2023/04/17/2023-06822/section-30d-new-clean-vehicle-credit> (17 April 2023)

³Source: POSCO Holdings Battery Materials Business Value Day Presentation, Slide 41. POSCO has committed to building its own SPG capacity in-house. Video available here: <https://youtu.be/GFwivqfKXhU>

Graphite uses

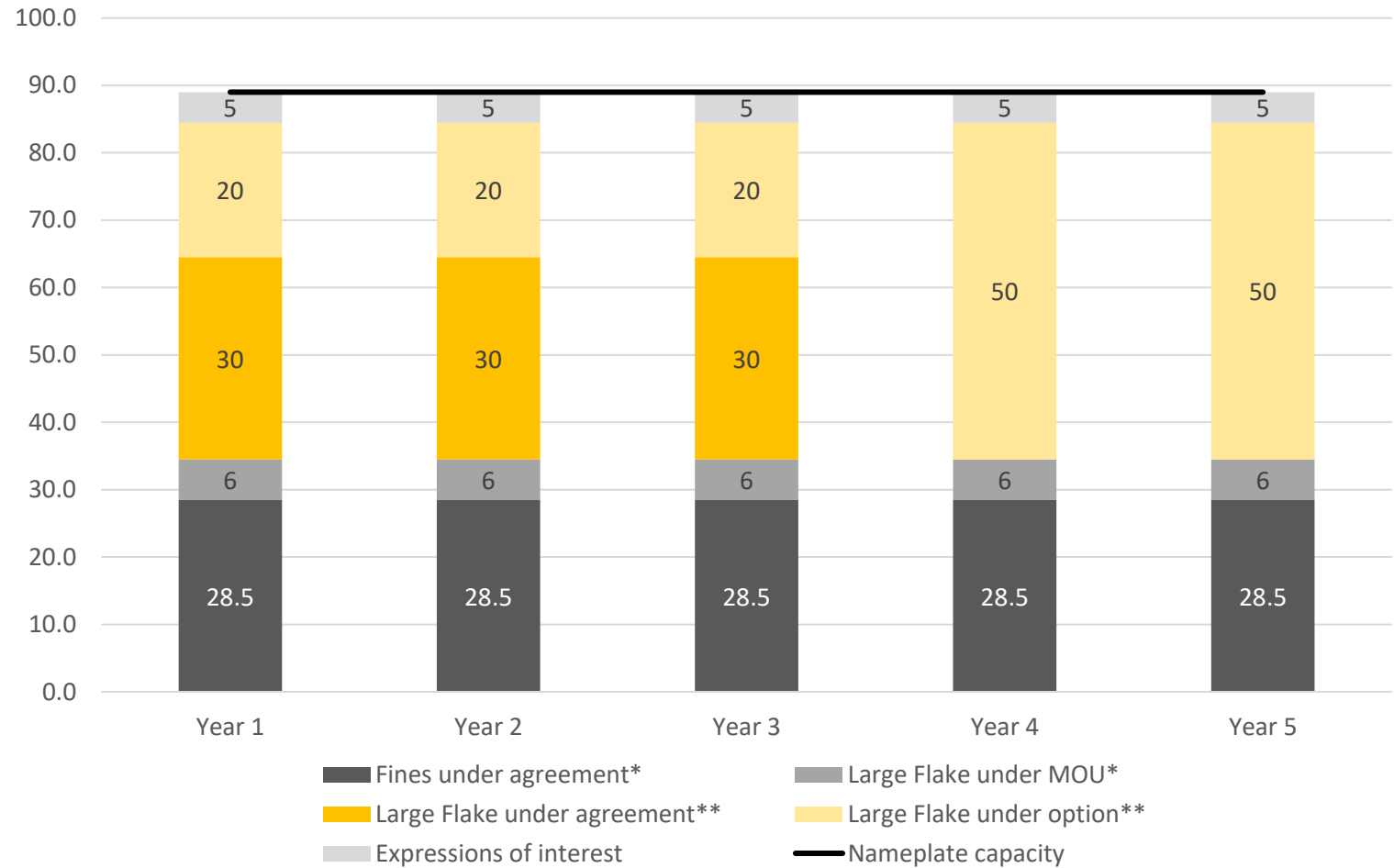
Black Rock has a diversified product mix with 60% exposure to the high margin large flake market



Offtake agreements

~95% of Mahenge's Module 1 production is under binding offtake, option or MOU

Mahenge Offtake for Module 1 (89ktpa)



*With POSCO. ** With Muhui International Trade (Dalian) Co. Ltd (Muhui) & Qingdao Yujinxi New Material Co. Ltd (Qinqdao)