Black Rock Mining
Mahenge Graphite Mine

Simply Better Graphite: Investor Update

Presentation to Sharecafe

April 2024

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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.

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Black Rock at a glance

Premium graphite player

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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: BKT major shareholder at 10.1%
- Cornerstone offtake partner (3 offtake agreements)[1]
- Providing up to US$50m in development funding[1]
- 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 CRDB[2]
- Loan documentation due to be completed near term

Substantial upside potential if BKT team can execute:
- Mahenge NPV_{10} US$1.4bn (A$2.1bn)[3]

[1]Slide 19 provides more details of Black Rock's Strategic Alliance with POSCO.
[2]DBSA & IDC are both wholly-owned subsidiaries of the South African Govt. See ASX release 18 March 2024.
[3]Project metrics updated Oct 2022. NPV post-tax, post Govt 16% free carry. More detail on Slide 9.

Capital structure	
ASX ticker	**BKT**
Share price (28 March 2024)	$0.072
Shares on issue	1,251.3 M
Options and performance rights	74.8 M
Market capitalisation (undiluted) (@$0.072)	A$90 M
Cash[4] (31 Dec 2023)	A$5.2 M
Debt (31 Dec 2023)	Nil

Major shareholders	
Copulos Group	10.9%
POSCO Group	10.1%

[4]$10m in new equity raised at 6.5c on 27 March 2024

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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

Steuart 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. Steuart 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. BKT'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

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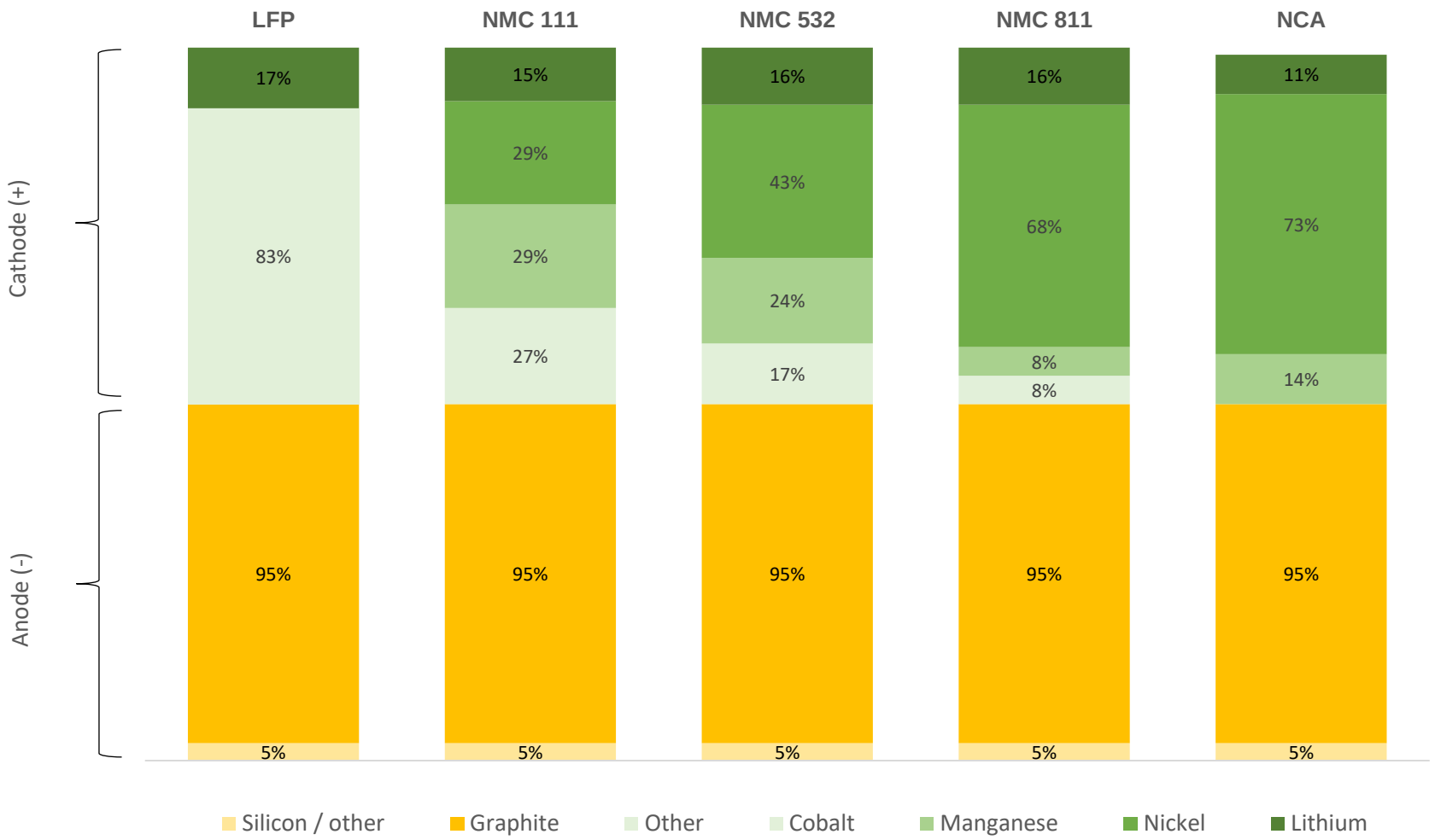
There is more graphite in Li-ion batteries by volume than any other material, regardless of battery chemistry.

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

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)

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More natural graphite in batteries

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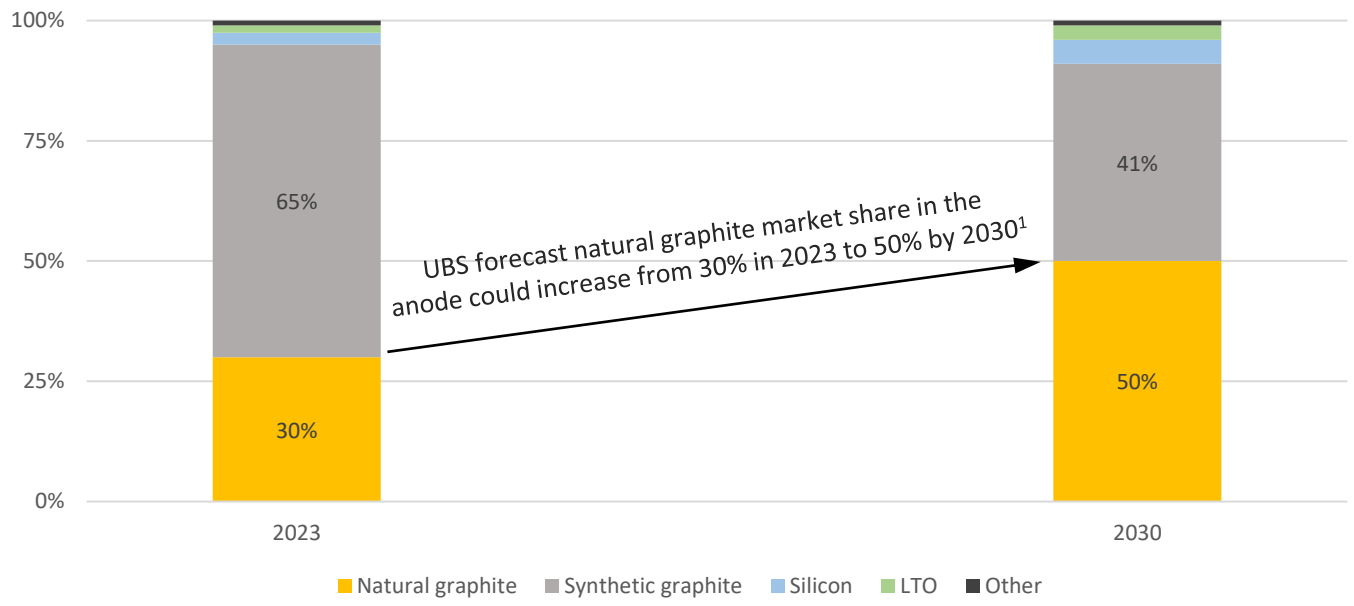
The use of natural graphite in batteries has potential to grow from 30% of the anode to 50% by 2030

Growing importance of natural graphite in batteries



In late Sept 2023, UBS published a research report on natural graphite[1]:

- 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.

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Sources: Public releases, UBS, Benchmark Mineral Intelligence Q4 CY22, Black Rock Mining
[1]Australian Financial Review, 1 October 2023, *Graphite to Surge:UBS*
[2]Syrah Resources (ASX:SYR): Q3 2023 Quarterly Activities Report, 17 October 2023

Graphite price turning point?

Graphite prices support healthy potential margins at Mahenge at forecast AISC of US$518/t

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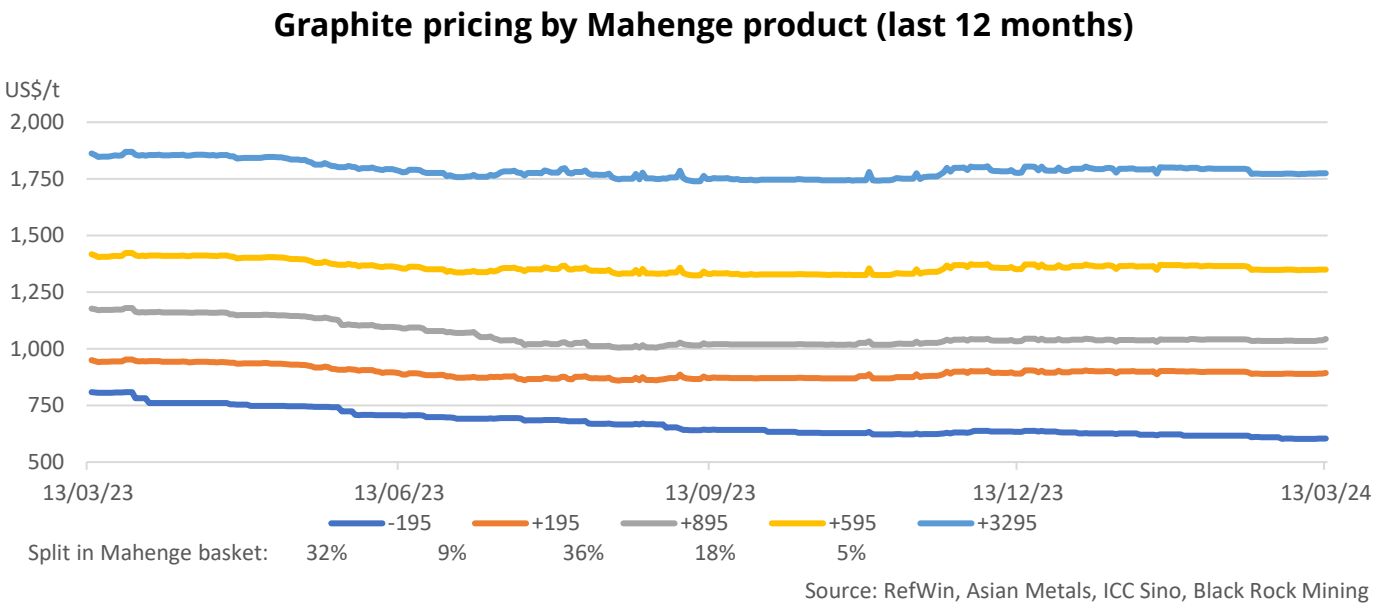

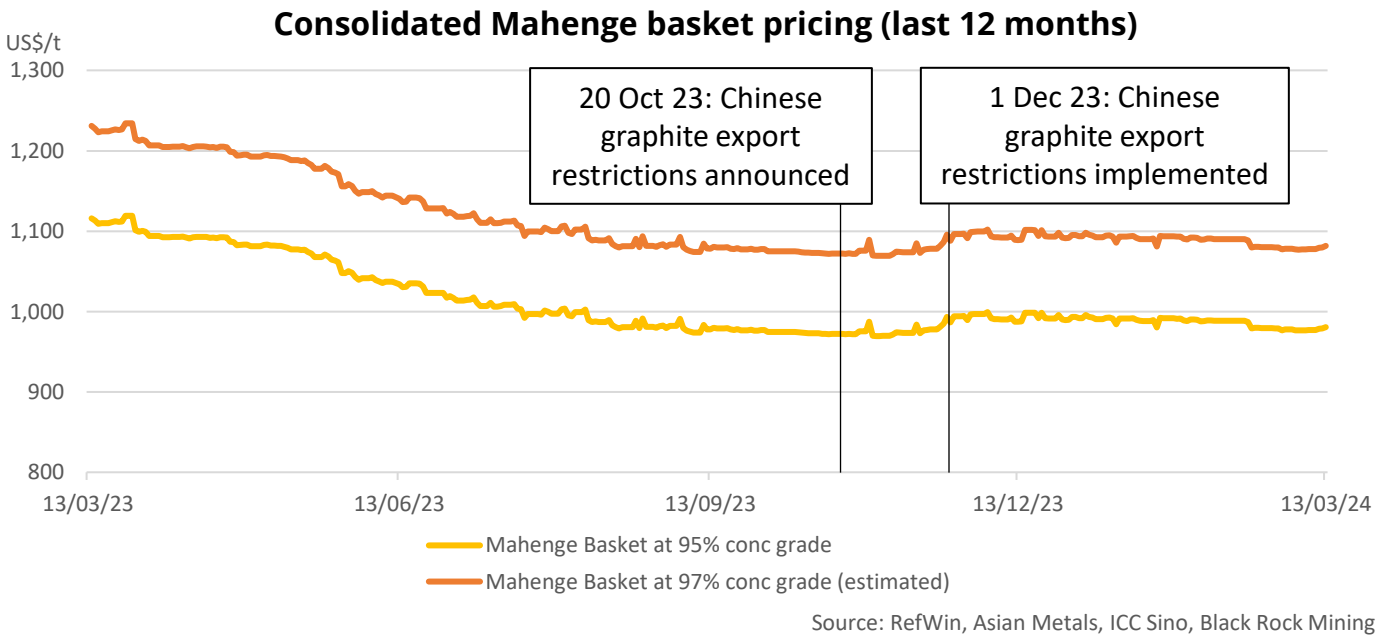

BKT sensitivity: 10% increase in basket price = 20% increase in unlevered NPV

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A snapshot of the Mahenge Graphite Project

Simple open pit mine development with outstanding forecast returns[1]

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US$1.4B
$NPV_{10\ nom}$ post tax, post 16% FC

36%
Post-tax, ungeared IRR

89ktpa
Module 1 production* (1Mtpa)

US$225m
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

[1]See 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$10m for early works which can be completed pre FID. 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.

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Why Mahenge?

Unique competitive advantages driven by geology and substantial existing infrastructure

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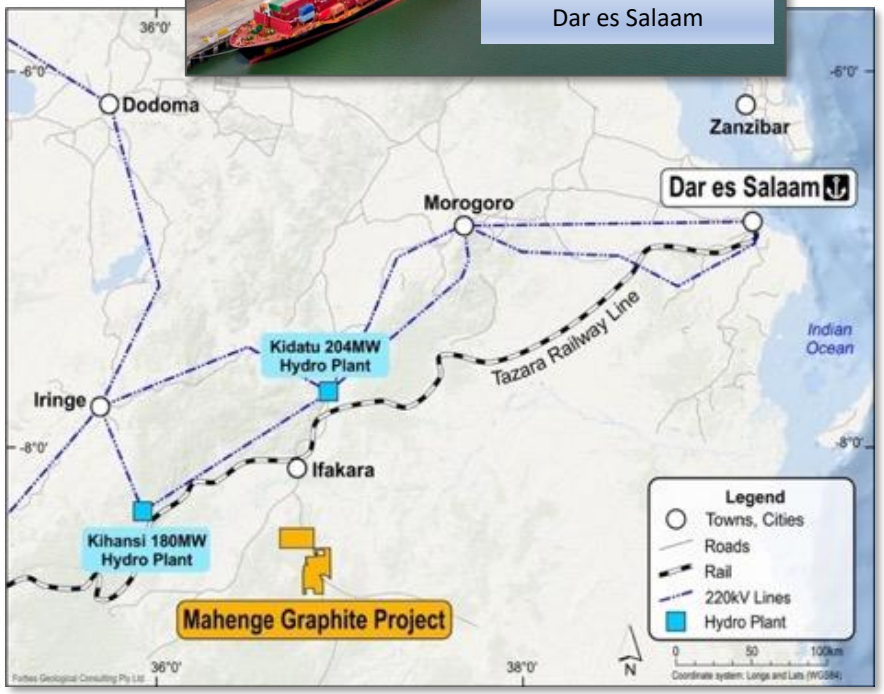
Julius Nyerere Hydropower Project (2115MW)

Tazara Railway Line

Large container port in Dar es Salaam



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

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Forecast first quartile costs

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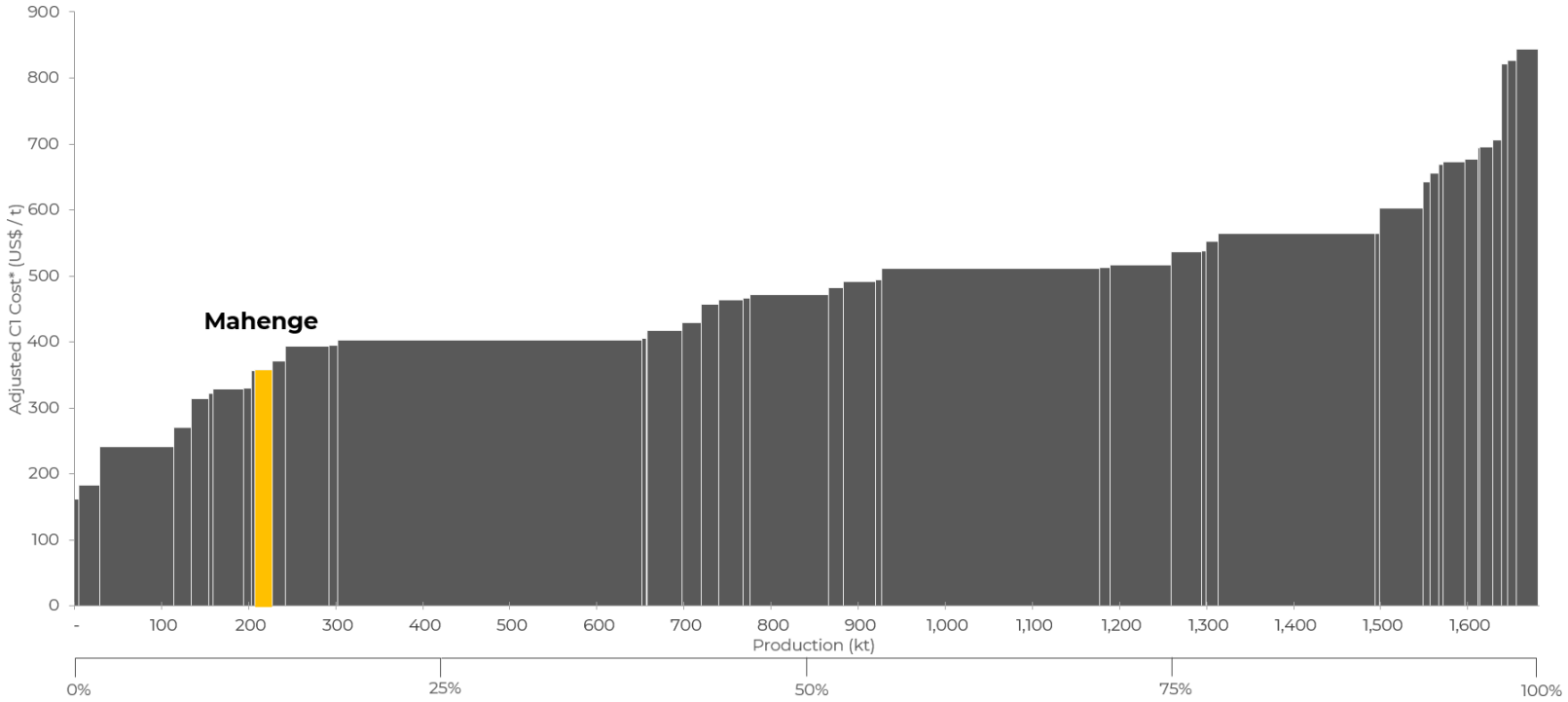
First quartile assets are higher margin and more robust through the cycle

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 BKT's relative position by up to ~US$40-60/t per 1% above 95% pricing.

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ESG focused ecosystem

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

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posco

Tanzanian Government

EQUATOR PRINCIPLES

IFC International Finance Corporation WORLD BANK GROUP
Creating Markets, Creating Opportunities

ESG CERTIFIED

Digbee ESG™

Environmental and Social Impact Assessment

Battery

Large Flake

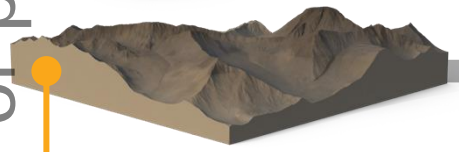
Customer Markets

FARU GRAPHITE CORPORATION

Permitted

Robust Compliance

Simple Processing
- Three stage polishing
- No wet screen
- Low energy



Mahenge Graphite Deposit
- High-grade graphite
- Low deleterious elements
- Low strip ratio

Hydro Electric Power
- Low carbon power supply, and transport footprint

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

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Graphite playbook

Sequential development that is customer driven

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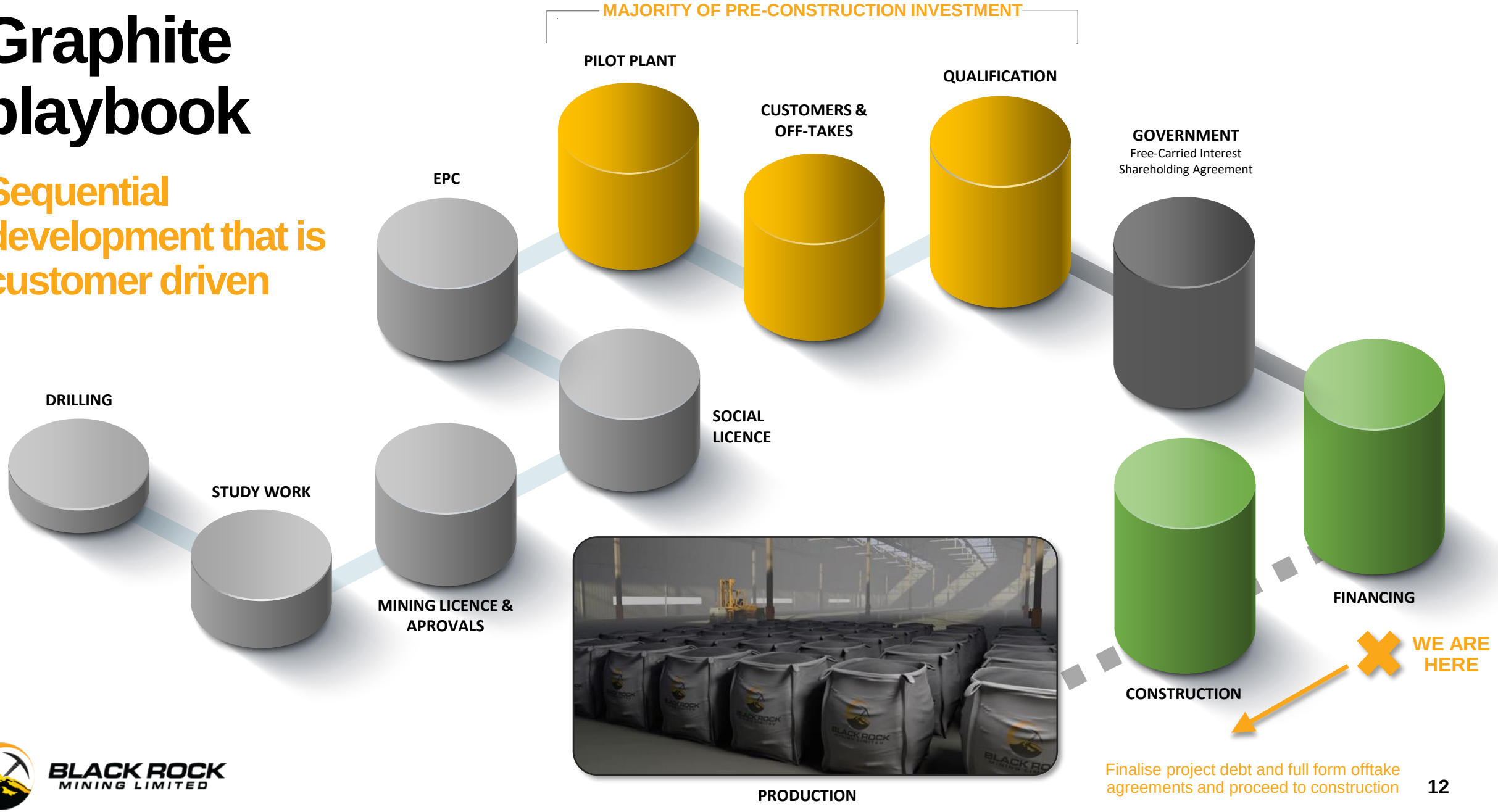

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Development timetable

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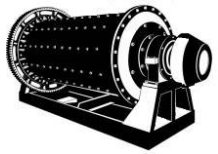
Aiming to complete loan documentation near term.

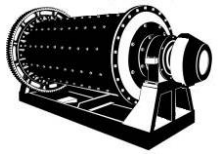
- US$153m in debt approvals with DBSA, IDC and CRDB[1] comprising:
  - US$113m Term Debt
  - US$20m Working Capital Facility
  - US$20m Cost Overrun Facility
- Construction period 20 months
- Targeting first production from Module 1 in CY26

Module 1
1mtpa



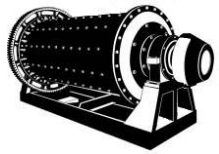
Initial Capex US$225m[2]
Production 89ktpa+

Module 2
1mtpa



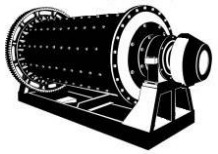
Capex US$107m
Production 85ktpa+

Module 3
1mtpa



Capex US$117m
Production 85ktpa+

Module 4
1mtpa



Capex US$104m
Production 85ktpa+

[1]Loan documentation underway based on 7-year tenor, interest rate based on SOFR + margin. See ASX release 18 March 2024.
[2]Initial Capex = US$182m for Module 1 capex + US$33m for the power line + US$10m for early works which can be completed pre FID
Note: Capex, power line and construction period estimates from Mahenge eDFS Update Oct 2022. More detail on Slide 9.

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POSCO's anode growth plans

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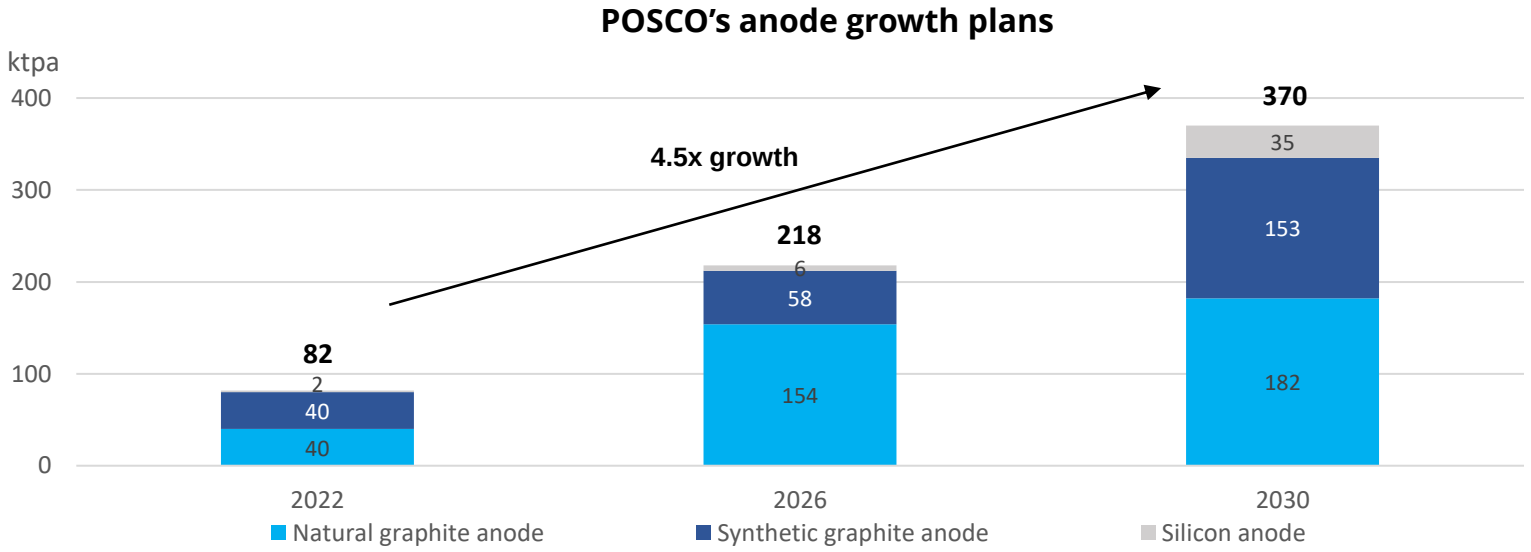
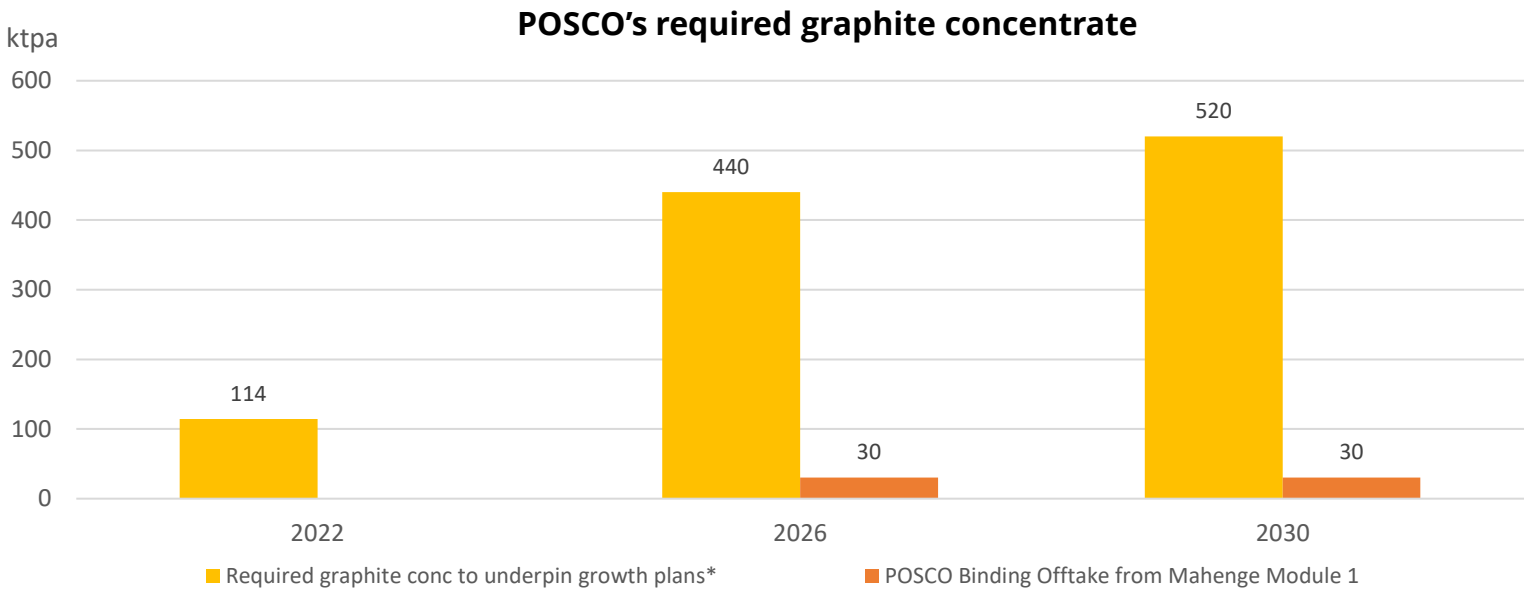
- In 2022, POSCO was the largest anode producer outside China
- POSCO plans to spend US$93bn on growth projects by 2030[1]
- 46% of POSCO's capex spend in 2023-2025 is on LiB Materials[2]



Source: POSCO Holdings Battery Materials Business Value Day Presentation, 11 July 2023, Slide 43.



*Based on the typical industry yield to SPG in China of 35%

[1]Source: https://www.reuters.com/markets/commodities/south-koreas-posco-plans-93-bln-investment-by-2030-2023-07-03 (3 July 2023)
[2]Source: POSCO Holdings Battery Materials Business Value Day Presentation, 11 July 2023, Slide 5. In 2023-2025, POSCO's LiB Materials Business has the largest share of group capital expenditure for the first time at 46.2% (Steel 38.9%, Eco-friendly infrastructure 14.9%)

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Strong near term news flow

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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 BKT board seat[1]
- Potential debt financing milestones:
  - US$153m in debt approvals with DBSA, IDC and CRDB[2] ✓
  - 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 BKT**[3]
  - **Bring in a partner at the project level as a less dilutive option**[4]
  - Also assessing other options focused on minimising dilution / maximising value per share

[1]POSCO has a right to appoint a BKT director if it maintains an equity stake in Black Rock of >10% (currently 10.1%).
[2]DBSA & IDC are both wholly-owned subsidiaries of the South African Govt. See ASX release 18 March 2024.
[3]Non-binding MOU signed with POSCO in Sept 2023 for the LOM rights to the fines for Module 2 for an investment in BKT of up to US$40m or 19.9% (whichever is lower).
[4]Interest received from industry participants, OEMs, mining companies, mining private equity funds and sovereign wealth funds.

BKT ready to deliver

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

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Strategic Alliance with POSCO

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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 life-of-mine offtake agreement for fines[1] (32% of volume)
    - MOU for 6ktpa of large flake[2] (7% of volume)
  - Module 2:
    - MOU for fines offtake[3]
- POSCO is providing development finance for Module 1:
  - Binding US$10m prepayment[1]
  - MOU for US$40m investment in BKT or 19.99% (whichever is lower)[3]
- Exploring other opportunities to collaborate:
  - MOU to explore other opportunities to develop an IRA-compliant anode supply chain[3]

[1]Source: 29 May 2023, Black Rock Signs Binding Offtake and US$10M Prepayment Agreements With POSCO
[2]Source: 23 May 2023, Black Rock Expands Offtake Partnership with POSCO
[3]Source: 4 Sept 2023, Black Rock Signs MOU with POSCO for Mahenge Module 2 offtake for BKT investment of up to US$40M

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Tanzania: An improving jurisdiction for investment

- Moody's recently upgraded Tanzania to a B2 Positive due to reduced political risk and structural reform agenda[1]
- Equinor/Shell/Exxon Mobil recently struck a deal for the development of an LNG terminal in Tanzania expected to cost tens of billions of dollars[2]
- 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 agreements[4]

[1]Source: https://www.thecitizen.co.tz/tanzania/news/national/moody-s-gives-tanzania-favourable-credit-rating--4206196
[2]Source: https://www.reuters.com/business/energy/equinor-shell-exxon-agree-lng-project-with-tanzania-2023-05-19/
[3]Source: https://www.thecitizen.co.tz/tanzania/news/national/how-government-plans-to-boost-mining-s-gdp-contribution-to-10-percent-before-2025—4245214
[4]Source: https://dailynews.co.tz/why-mining-investment-forum-crucial-for-tz/

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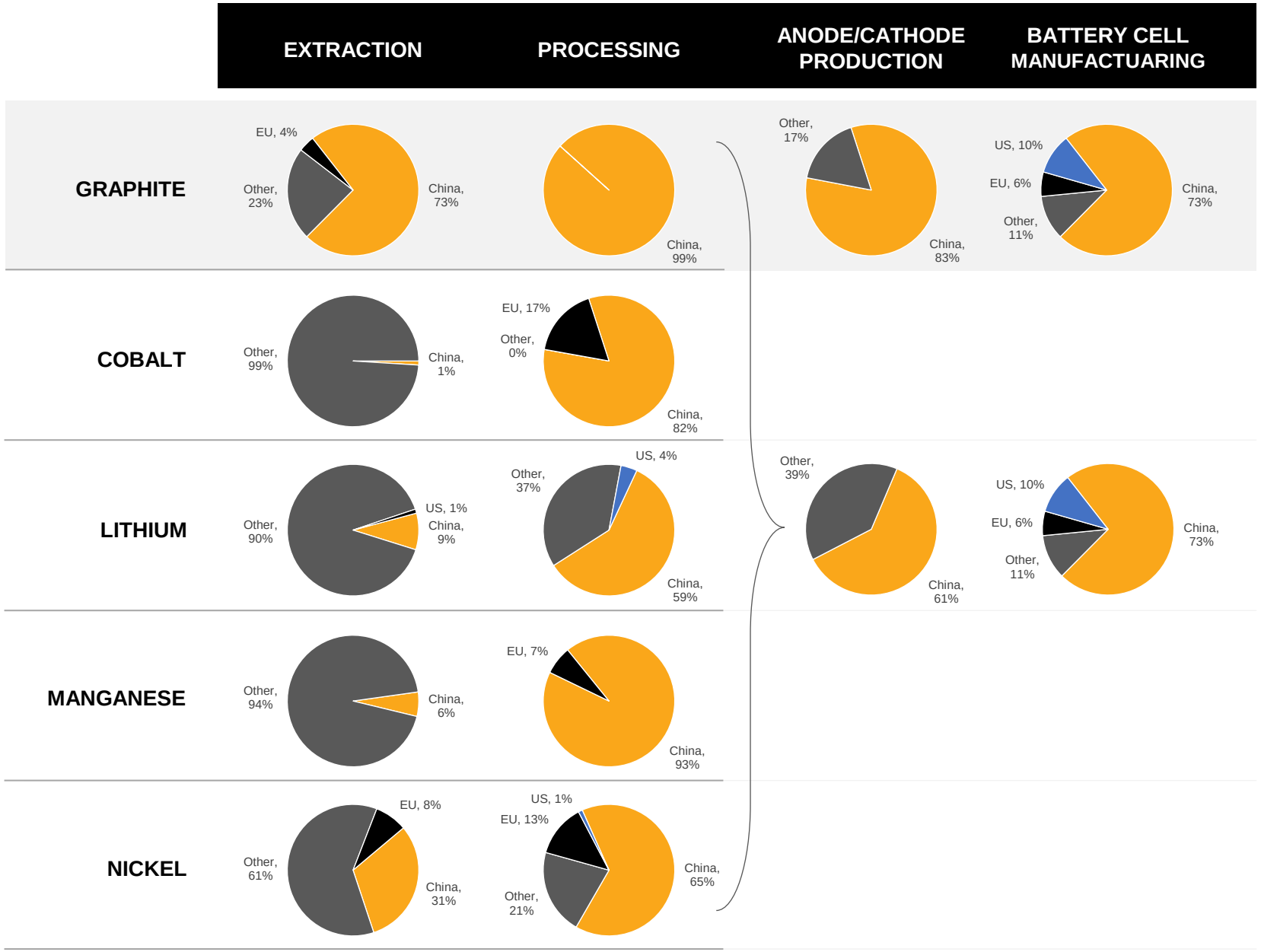
Li-ion battery raw materials supply chain by country

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



Sources: Public releases, Benchmark Mineral Intelligence, Black Rock Mining

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Battery demand for graphite at a tipping point?

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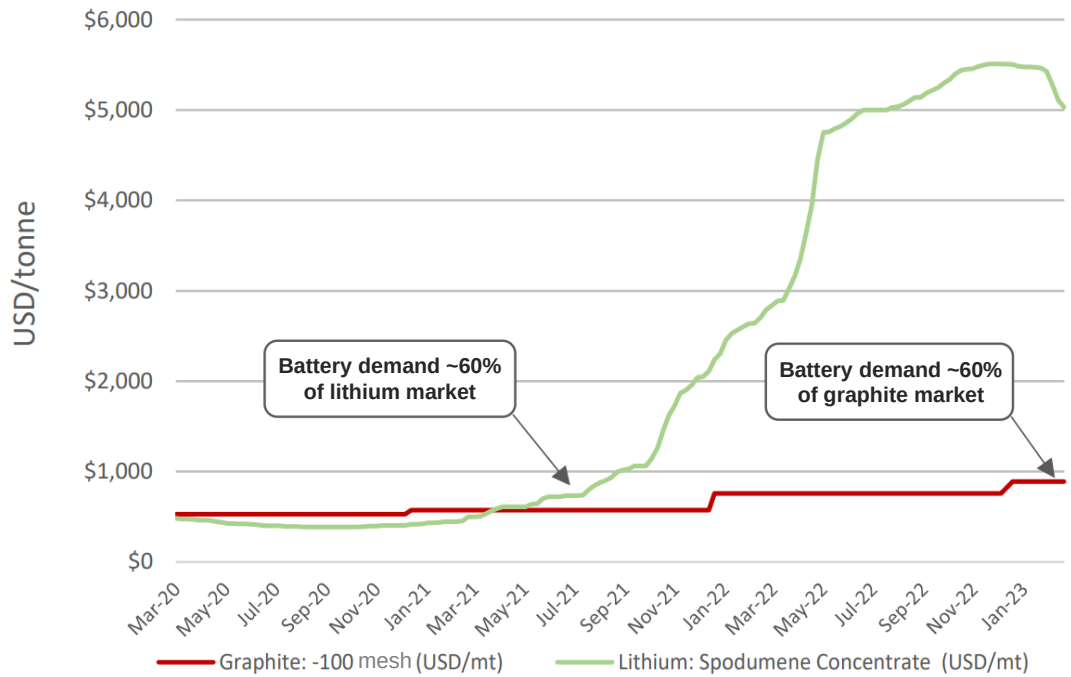
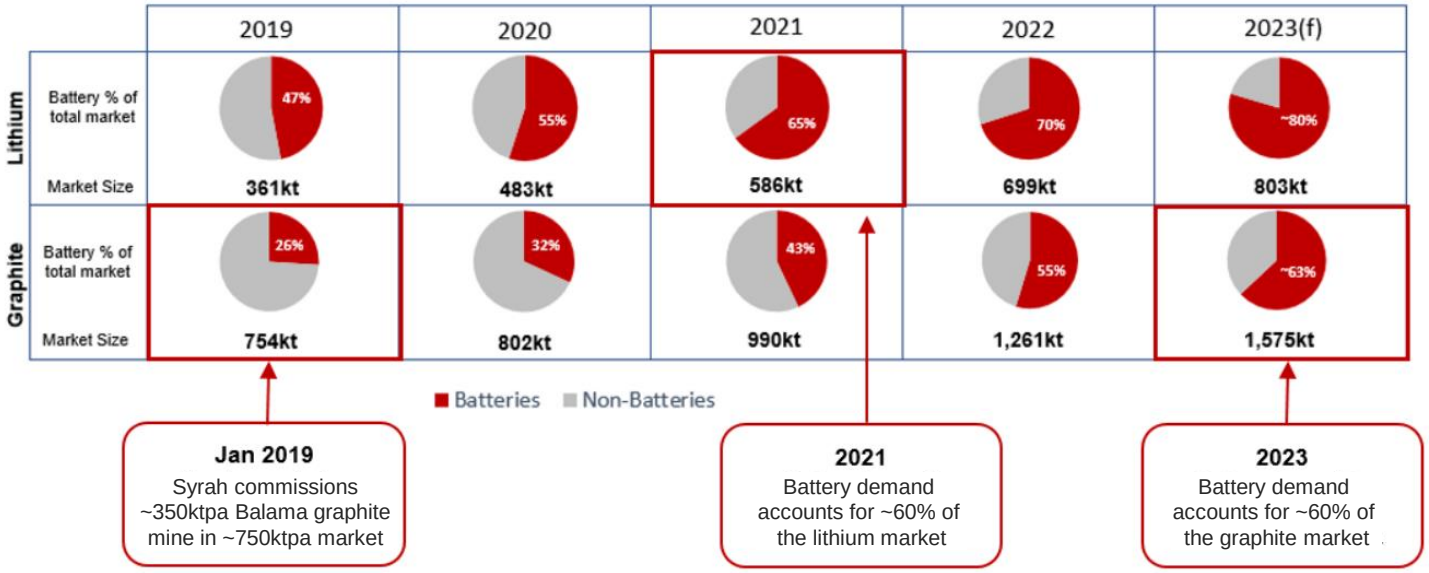
Battery demand for graphite expected to hit ~60% in 2023

Could battery demand start to drive graphite pricing from 2023?





Source: MST Financial, Benchmark Mineral Intelligence, Black Rock Mining

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Energy Minerals increasingly attractive

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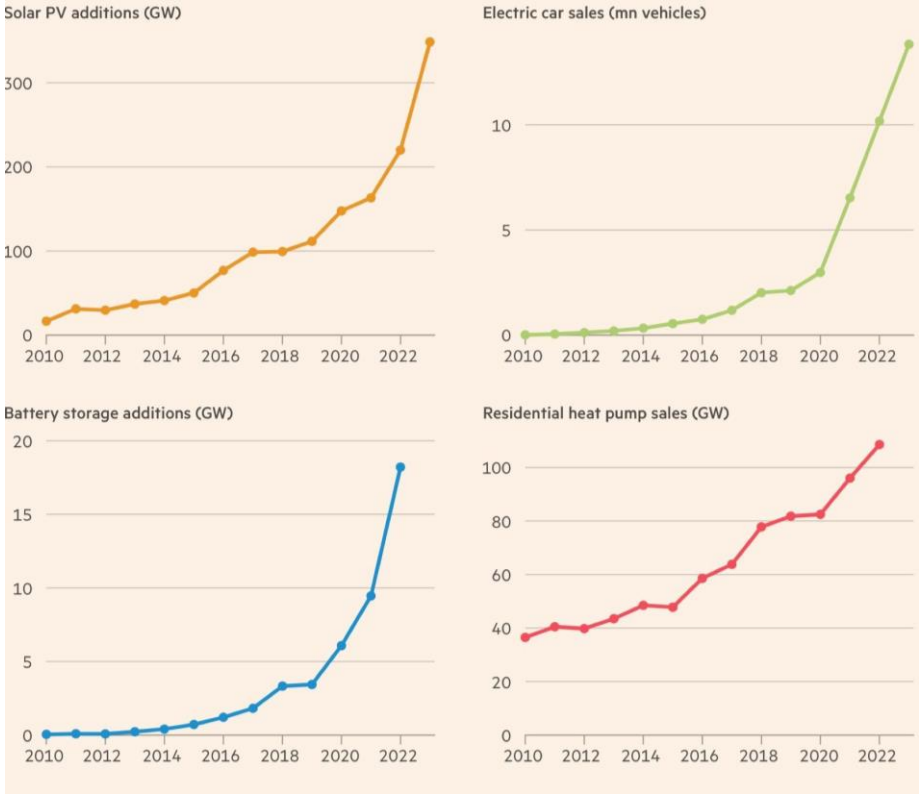
Energy transition is a multi-decade thematic at a critical inflection point on the S-curve

- 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 2023[1]
- Forecast global GDP growth of 3% in 2023[2]

Source: Financial Times, IEA 2023
[1]Source: Rho Motion, [2]Source: IMF

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Working towards an IRA-compliant supply chain

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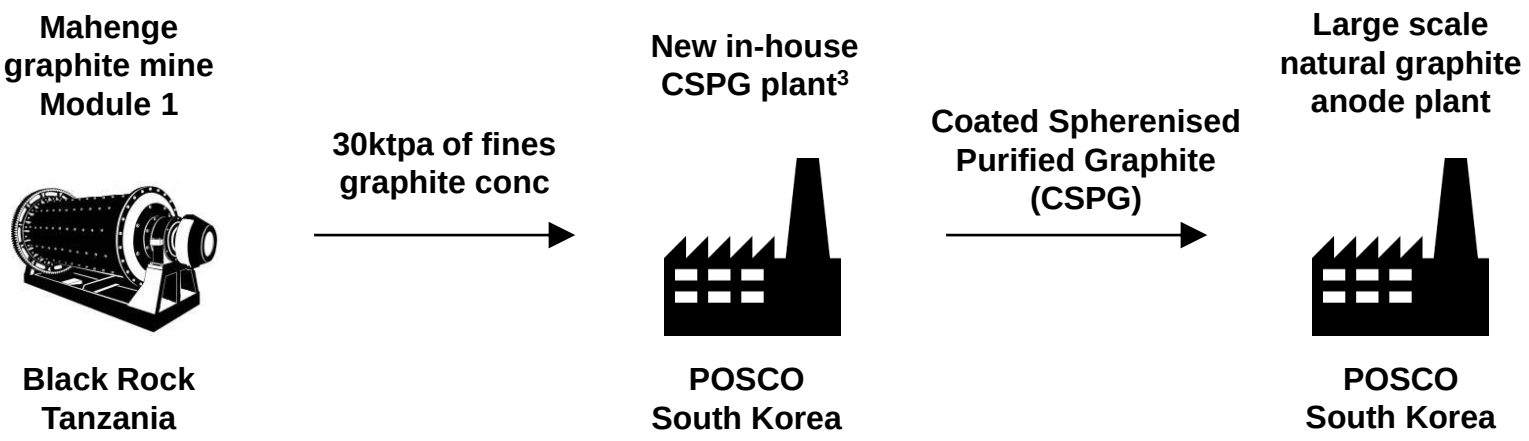
Black Rock is collaborating with POSCO to establish a new anode supply chain

The Inflation Reduction Act (IRA)[1] in the US provides a Clean Vehicle Credit under Section 30D[2] 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 2025, qualifying vehicles' batteries cannot contain critical minerals extracted, processed, or recycled by a foreign entity of concern*



[1]Source: https://www.whitehouse.gov/wp-content/uploads/2022/12/Inflation-Reduction-Act-Guidebook.pdf (Jan 2023, Version 2)
[2]Source: https://www.federalregister.gov/documents/2023/04/17/2023-06822/section-30d-new-clean-vehicle-credit (17 April 2023)
[3]Source: 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

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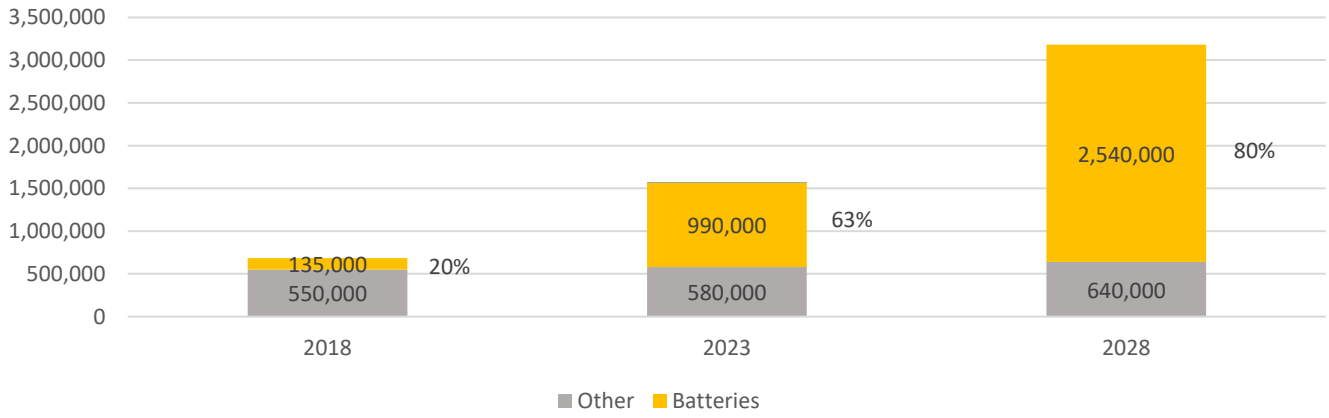
Black Rock has a diversified product mix with 60% exposure to the high margin large flake market

Price increases with flake size

SMALL FLAKE (FINES)	LARGE FLAKE	JUMBO FLAKE
Lithium-Ion Batteries	Flame Retardants	Flame Retardants
Paint & Coatings	Refractories	Gaskets & Seals
Lubricants	Aviation	Expandable Graphite
Pencils	Lithium-Ion Batteries	Fuel Cells

Natural graphite: Growing importance of battery demand



Source: Public releases, Benchmark Mineral Intelligence Q4 2022, Roskill, Black Rock Mining

Offtake agreements

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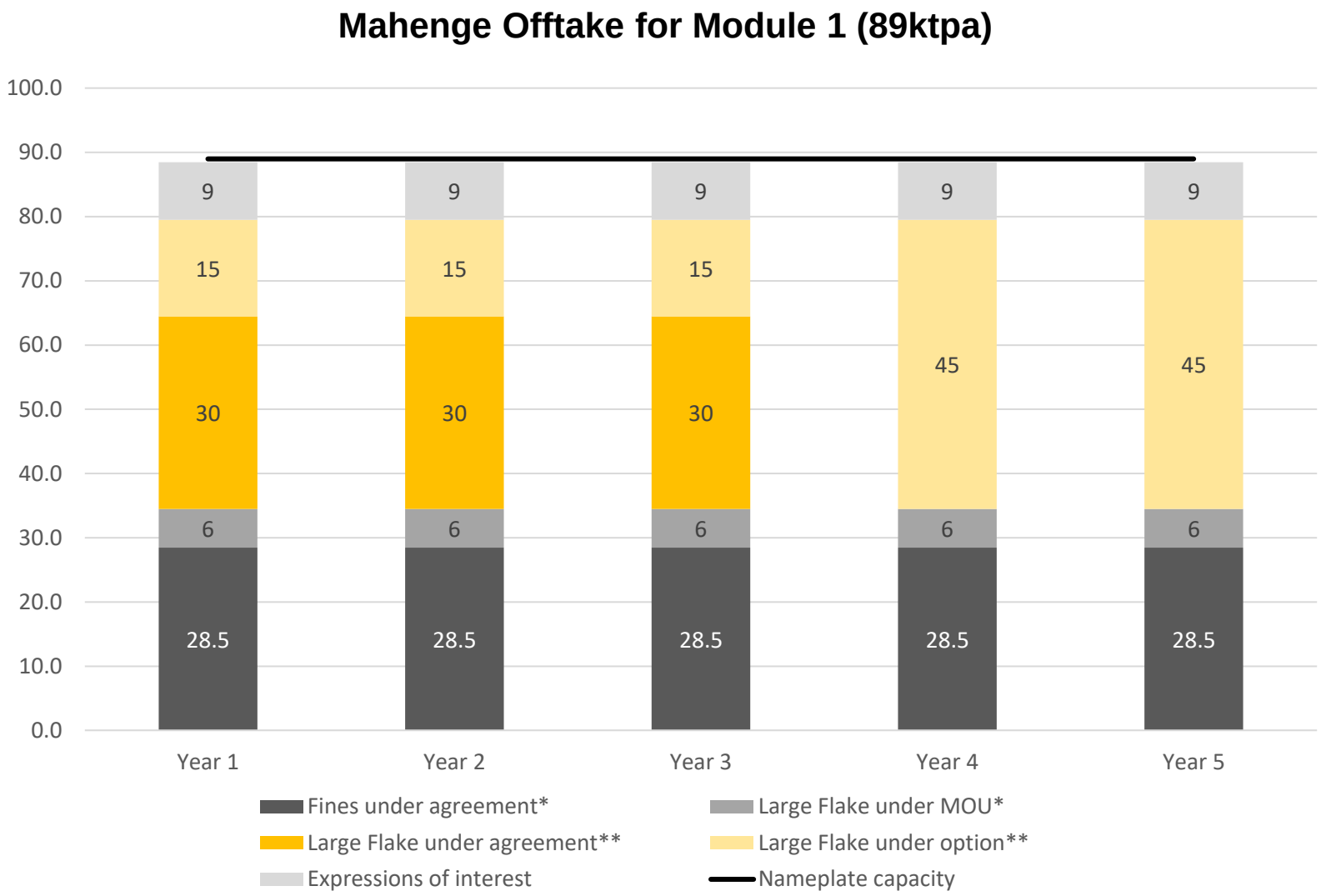
~89% of Mahenge's Module 1 production is under binding offtake, option or MOU



*With POSCO. ** With Muhui International Trade (formerly known as Taihe Soar) & New Materials

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