



**SYRAH** RESOURCES

# Q4 2024 Quarterly Activities Report

30 January 2025

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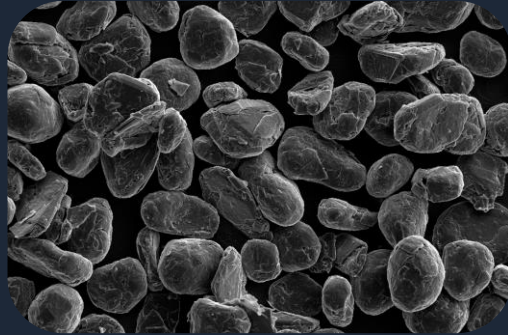


# Our Position

Syrah is a major ex-China natural graphite and active anode material (AAM) supplier for global customers, with upstream and downstream expansion potential underpinned by its world-class Balama resource



Natural graphite and AAM demand is expected to increase three and four times, respectively, over the next 10 years<sup>1</sup>



Syrah is the only operating vertically integrated natural graphite AAM supplier outside of China



Balama is an up to 350ktpa graphite producer in Mozambique supplying global battery anode and industrial customers since 2017



Ramping up production from the 11.25ktpa AAM facility at Vidalia with commercial sales arrangements in place with tier 1 customers

1. Benchmark Mineral Intelligence Flake Graphite Forecast, Q4 2024. Note: AAM demand is for natural graphite AAM.

# Syrah's Positive ESG Profile



## Leading ESG standards

- ✓ ISO:45001 and ISO:14001 certification at Balama
- ✓ ISO:9001 certification at Vidalia
- ✓ Vidalia facility developed in line with best practice health, safety and environmental standards
- ✓ Critical Risk Management Framework embedded across the Group
- ✓ Robust strategies for employee relations, community development and stakeholder engagement



## Best practice sustainability frameworks

- ✓ Sustainability frameworks guided by:
  - **Initiative for Responsible Mining Assurance ("IRMA")**
  - Global Reporting Initiative ("GRI")
  - United Nations Sustainable Development Goals ("SDGs")
  - International Council on Mining and Metals ("ICMM")
  - United Nations Guiding Principles on Business and Human Rights ("UNGPs")



## Low carbon footprint

- ✓ Independent life cycle assessment ("LCA") completed
- ✓ Lower carbon emissions footprint (life cycle) of natural versus synthetic graphite
- ✓ Lower carbon emissions footprint (life cycle) versus Chinese supply routes
- ✓ Solar and Battery Hybrid System at Balama
- ✓ Implementing initiatives to lower carbon footprint further



## Auditable back to source

- ✓ Fully integrated by Syrah from mine to customer
- ✓ Vidalia products have a single chain of custody back to the source
- ✓ Greenhouse gas emissions closely monitored, measured and auditable

# Q4 2024 Highlights

## Balama & Vidalia

0<sub>kt</sub>  
Balama production

\$4<sub>m per month</sub>  
Balama fixed C1 costs (FOB Nacala/Pemba)<sup>1</sup>

9<sub>kt</sub>  
Natural graphite sold and/or shipped<sup>2</sup>

\$564<sub>/t</sub>  
Weighted average sales price (CIF)<sup>3</sup>

- No production at Balama due to protest actions impeding operations
- Syrah declared force majeure at Balama<sup>4</sup>
- Achieved Initiative for Responsible Mining Assurance 50 level of performance for Balama<sup>5</sup>
- Lower natural graphite sales due to a significantly higher proportion of lower priced fines in the sales mix
- Balama natural graphite inventory depleted to 2kt<sup>6</sup>
- Production at Vidalia related only to AAM qualification processes – ramp up timing awaiting certainty on commercial sales to minimise operating costs and working capital
- Continued progress in Vidalia AAM qualification processes with customers
- Vidalia AAM sales expected this year, with timing dependent on qualification progress, US Government policy clarification, competing tariffed volumes of Chinese AAM supply to North America, and customer purchasing intent
- FID on Vidalia’s expansion to a 45ktpa AAM, inclusive of 11.25ktpa AAM, production capacity (“Vidalia Further Expansion”) is awaiting Vidalia sales and dependent on customer and financing commitments

## Corporate & Market

- Global EV sales in Q4 2024 up 35% compared to Q4 2023 to ~5.6 million units<sup>7</sup>, biased to growth in China
- Quarter end cash balance of US\$87m, including US\$58m restricted cash
- Completed US\$53m disbursement from US\$150m US DFC loan to provide long-term working and sustaining capital support to Balama<sup>8</sup>
- Syrah awarded US\$165 million Section 48C tax credit for the Vidalia Further Expansion project<sup>9</sup>
- US Department of Commerce and US International Trade Commission investigating imports of graphite AAM products from China at unsustainable and unfair prices<sup>10</sup>
- Permanent licence controls on Chinese graphite exports implemented

## Health & Safety



1. No Balama plant operations in Q4 2024. Excludes one-off costs associated with closing of US DFC loan.

2. Includes 0.6kt shipments to Vidalia.

3. Based on third-party customer sales.

4. Refer ASX release 12 December 2024.

5. Refer ASX release 20 December 2024.

6. Inventory at Balama, Nacala, Pemba, China and USA (excluding Vidalia).

7. Source: GlobalData.

8. Refer ASX releases 30 October 2024 and 11 November 2024.

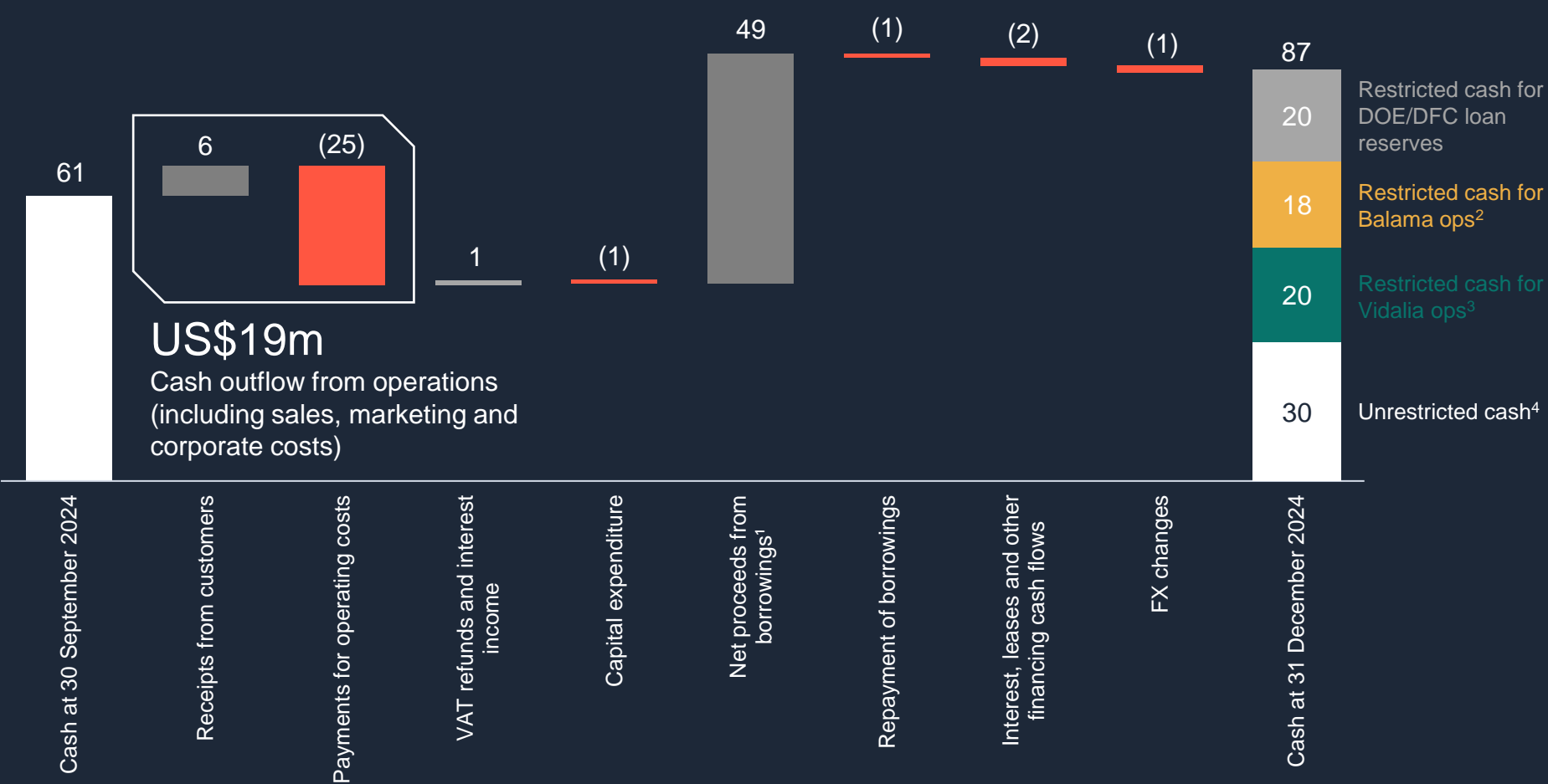
9. Refer ASX release 13 January 2025.

10. Refer ASX release 19 December 2024.



# Significant cash balance to fund Company operations

Cash flow bridge – 30 September 2024 to 31 December 2024 (US\$m)



- Cash balance at Q4 2024 end of US\$87m, including US\$30m unrestricted cash<sup>4</sup> and ~US\$58m restricted cash<sup>5</sup>
- US\$68m cash is available to fund Syrah operating and capital expenditures, comprising US\$18m restricted cash for Balama<sup>2</sup>, US\$20m restricted cash for Vidalia<sup>3</sup> and US\$30m unrestricted cash<sup>4</sup>
- US\$20m restricted cash held for reserves associated with DFC and DOE loans

Note: Numbers may not add up due to rounding.

1. Net of transaction costs related to borrowings.

2. Available subject to DFC approval.

3. Available subject to DOE approval.

4. Includes US\$20 million from the DFC loan disbursement, which was distributed from Syrah's Mozambique operating subsidiary in January 2025 and can be used for corporate, sales & marketing and/or Balama costs. Unrestricted cash, other than the US\$20 million, was held by Syrah's parent company and non-operating subsidiaries as at 31 December 2024.

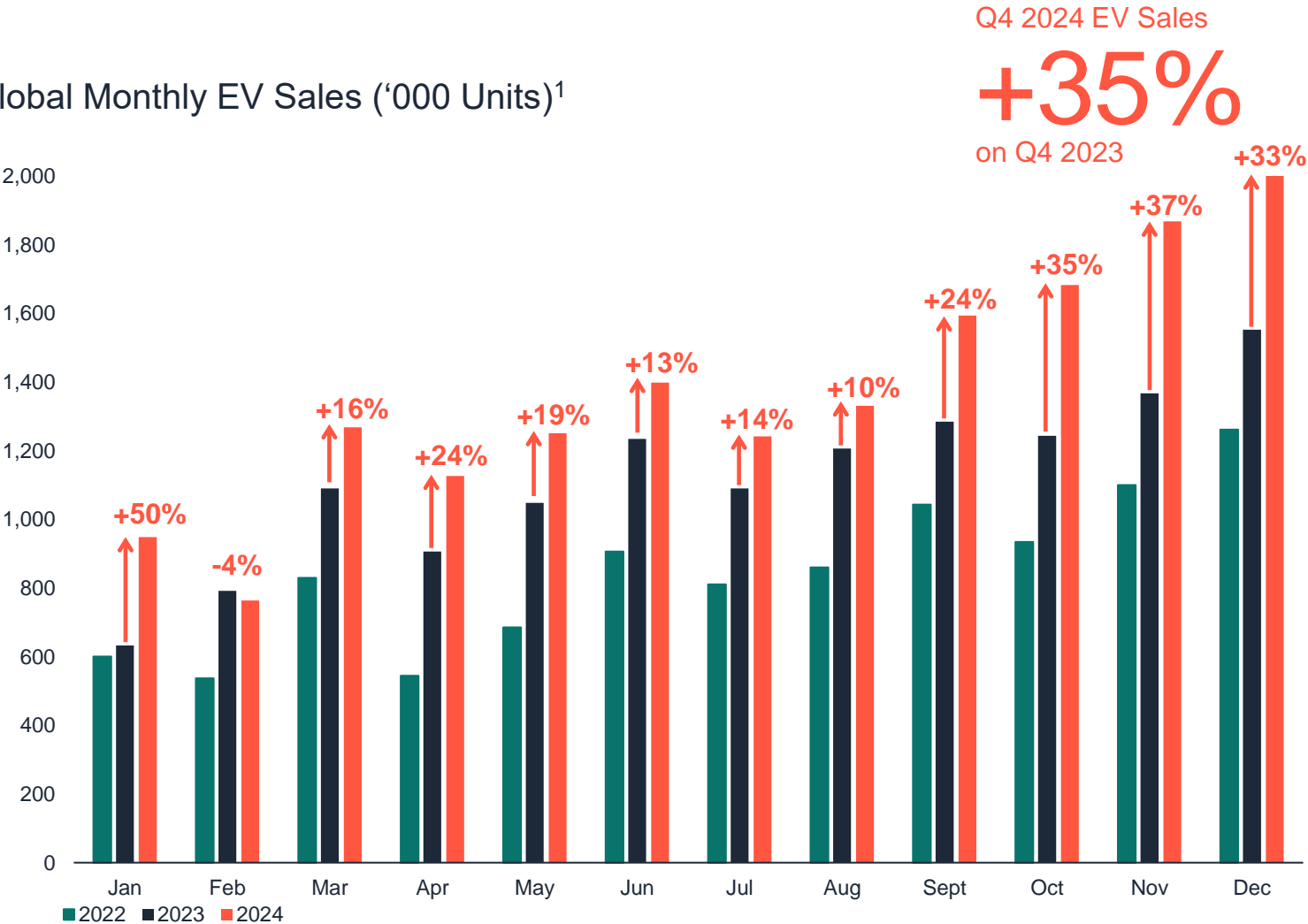
5. Restricted cash was held by Syrah's operating subsidiaries in Mozambique and the USA as at 31 December 2024.

# Market Overview

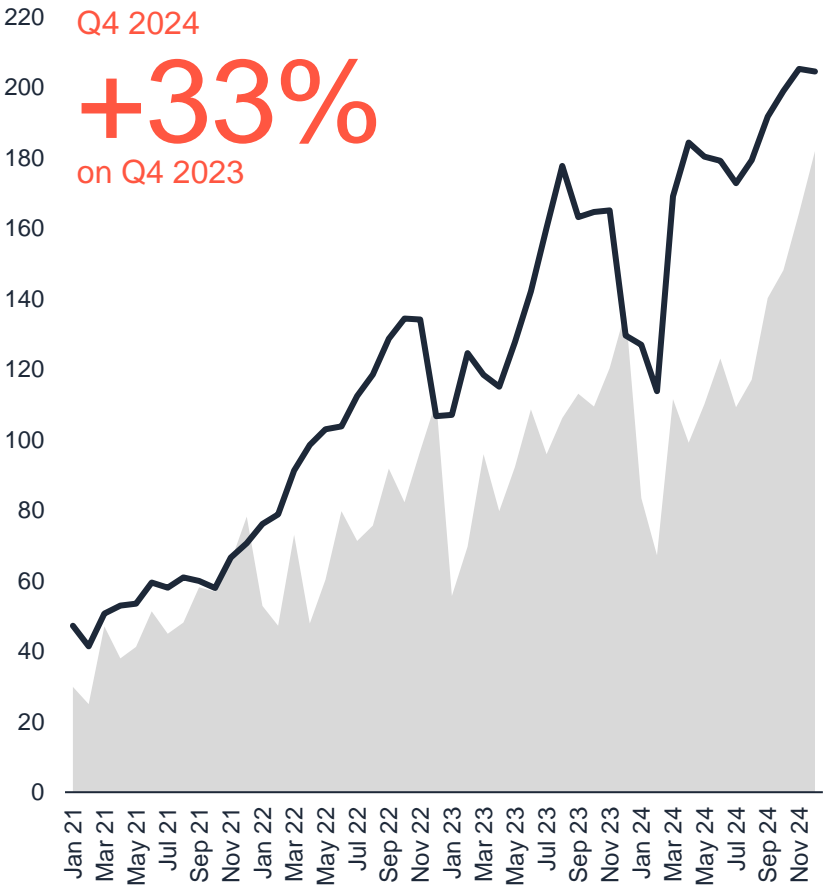


# China anode production continues to grow

Global Monthly EV Sales ('000 Units)<sup>1</sup>



China Monthly Anode Production (kt)<sup>2</sup>

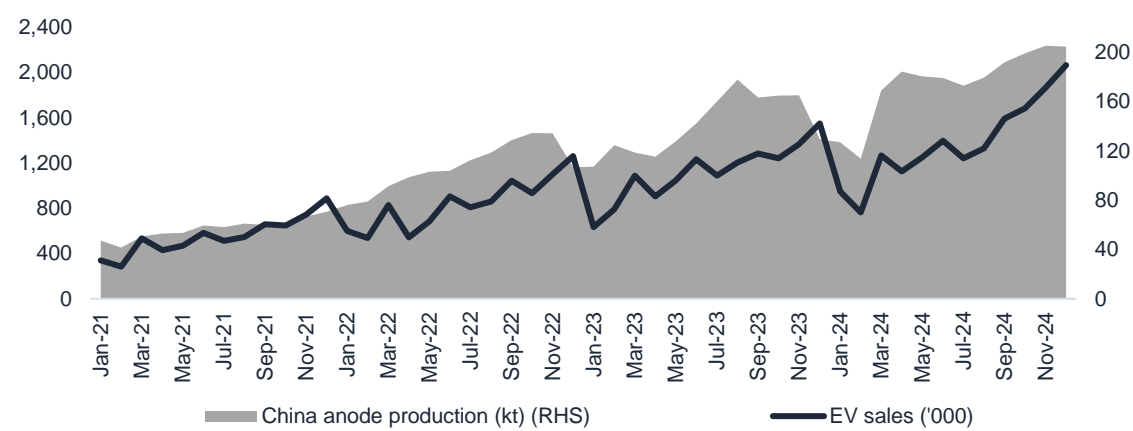


1. Source: GlobalData.  
2. Source: ICCSino. Notes: Includes China natural graphite AAM and synthetic graphite AAM production; global monthly EV sales profile shown in grey.

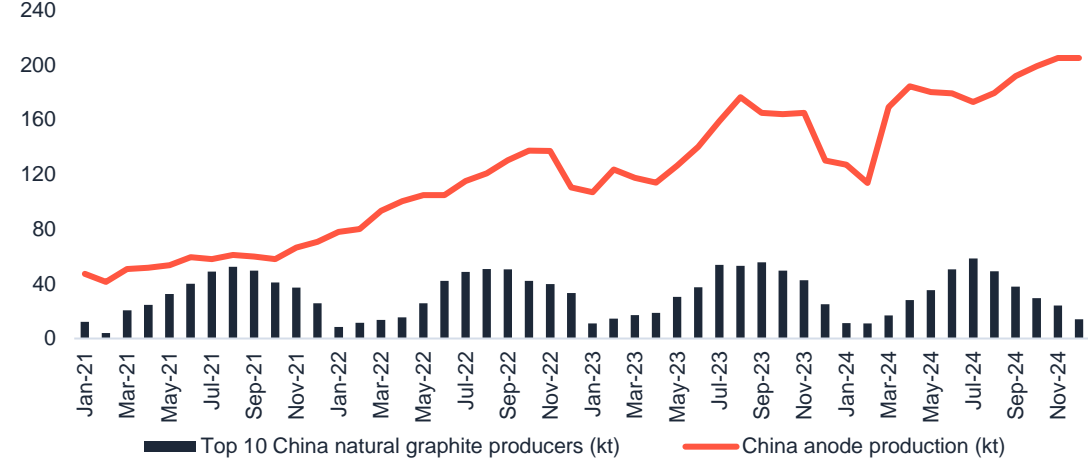


# Market conditions remain challenging

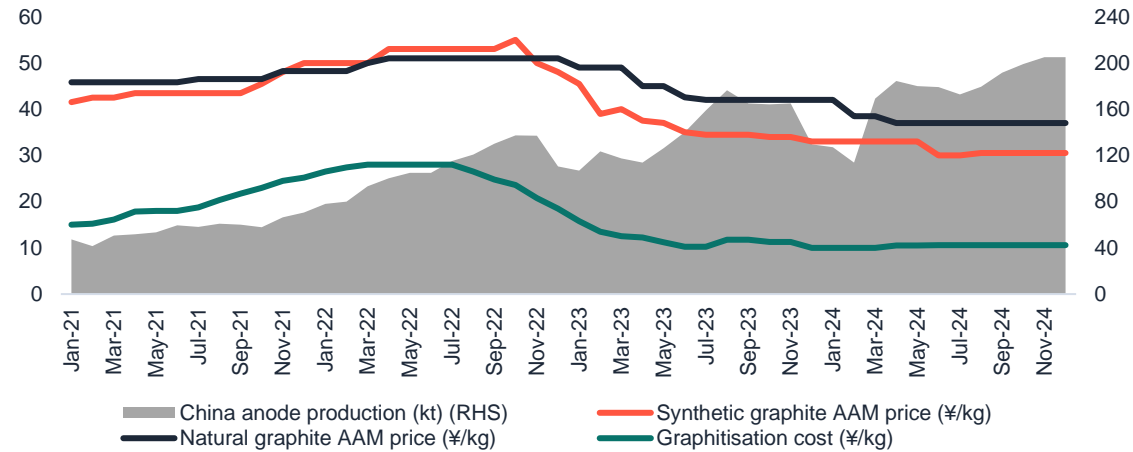
Global EV sales<sup>1</sup> vs. China Anode Production<sup>2</sup>



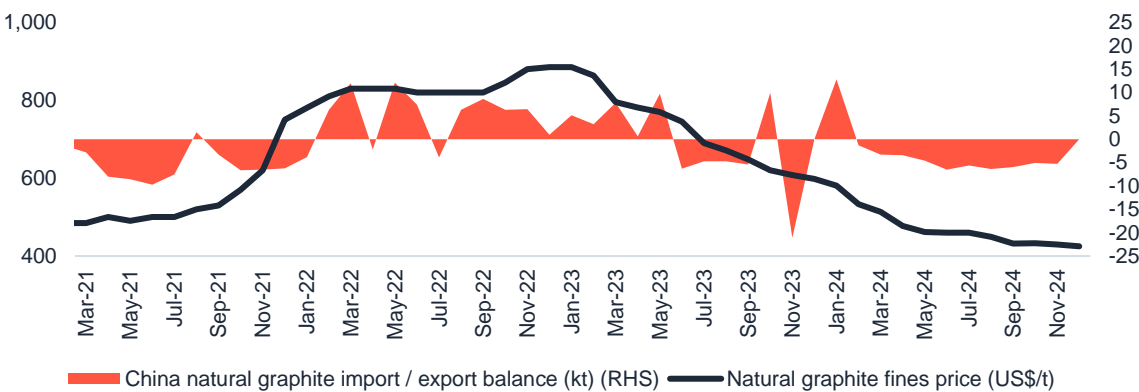
China Natural Graphite Production vs. China Anode Production<sup>2</sup>



Anode Prices and Graphitisation Costs vs. China Anode Production<sup>2,4</sup>



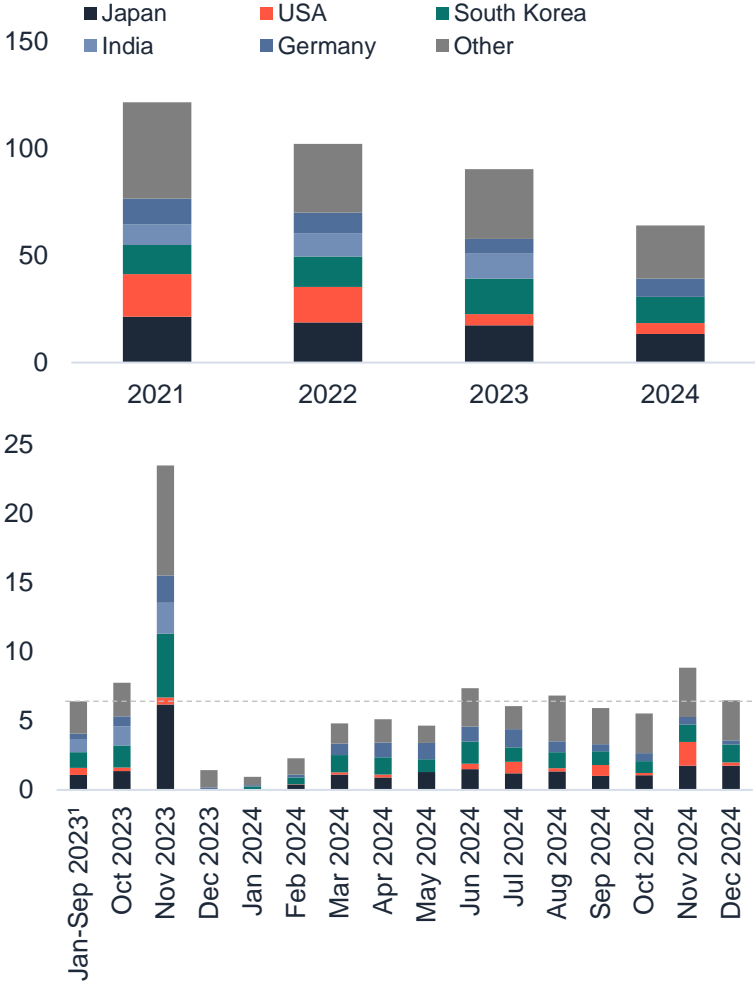
Natural Graphite Fines Prices vs. China Natural Graphite Import / Export Balance<sup>3,5</sup>



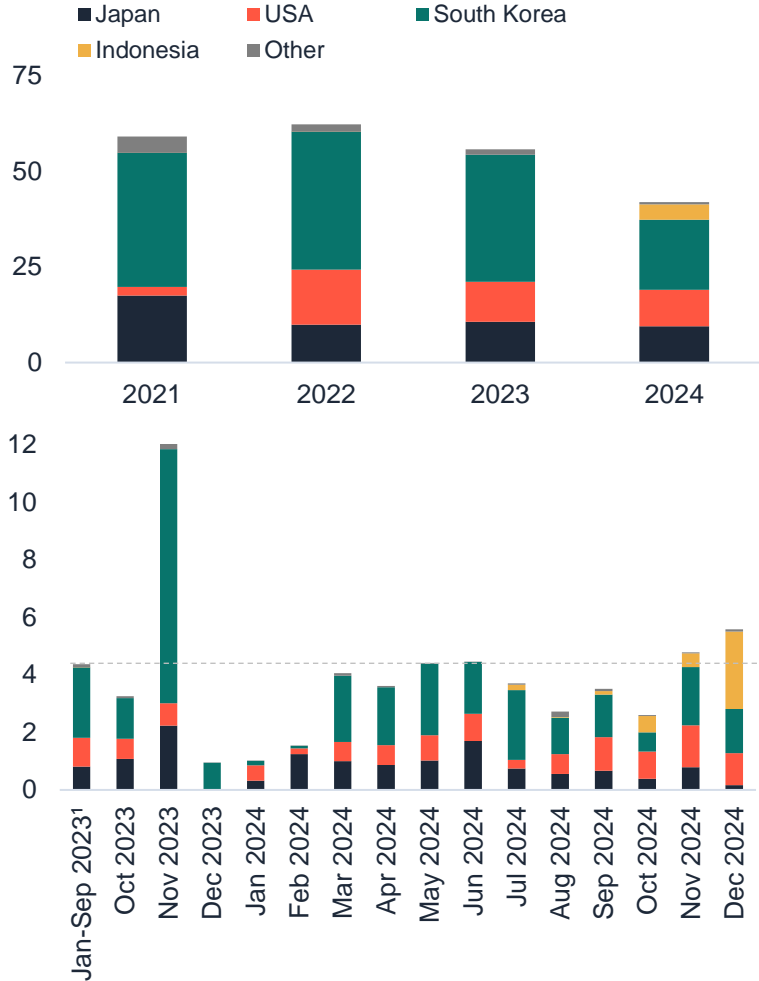
1. Source: GlobalData. 2. Source: ICCSino. 3. Source: China customs data.  
4. Anode prices shown are observable mid-point prices for "domestic/mid-range" natural and synthetic graphite AAM. The prices are not necessarily indicative of a landed USA price for AAM nor the price that Vidalia AAM will be sold at.  
5. Source: Asia Metals (Price Reporting Agency). China FOB prices for natural graphite fines (94% grade; -100mesh). Syrah's historical weighted average sales prices include sales under a mix of contract types and pricing mechanisms and are not necessarily representative of natural graphite spot prices nor consistent with the natural graphite price assessments of price reporting agencies. Furthermore, prices of China sales, within Syrah's historical weighted average sales prices, are exclusive of China VAT.

# China graphite and anode product exports increasing

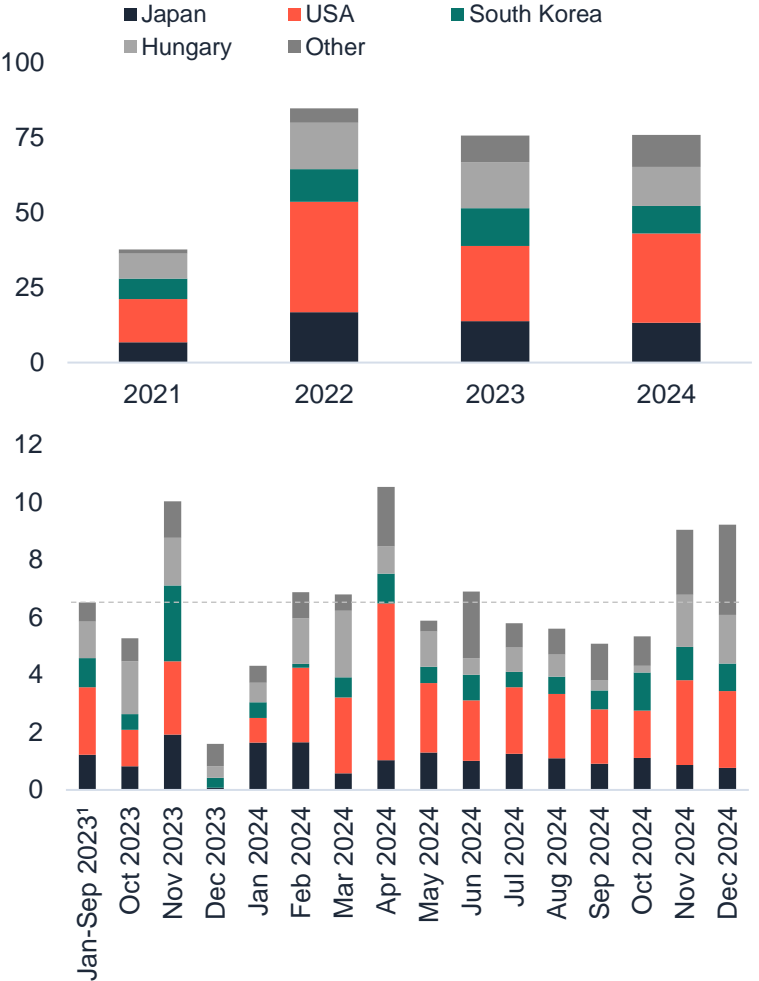
China natural graphite exports (kt)



China spherical graphite exports (kt)



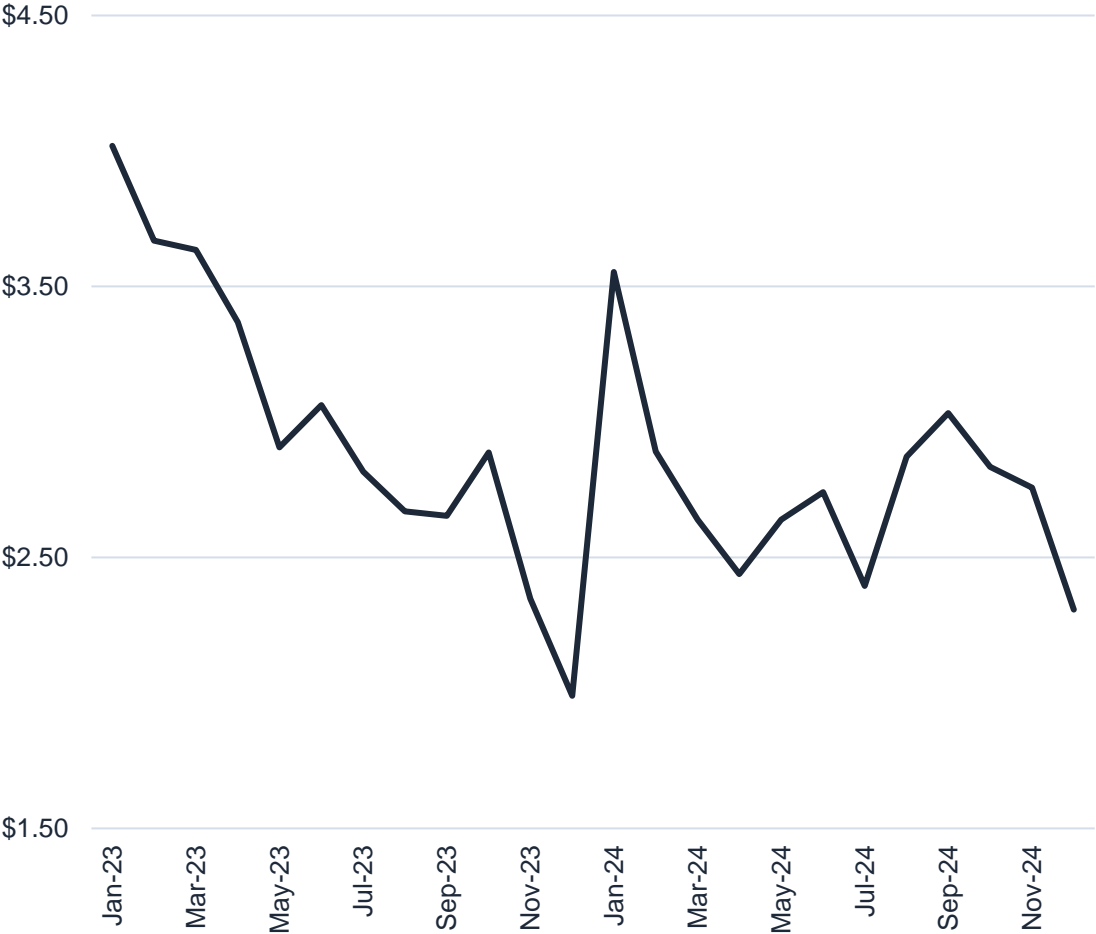
China natural graphite AAM exports (kt)



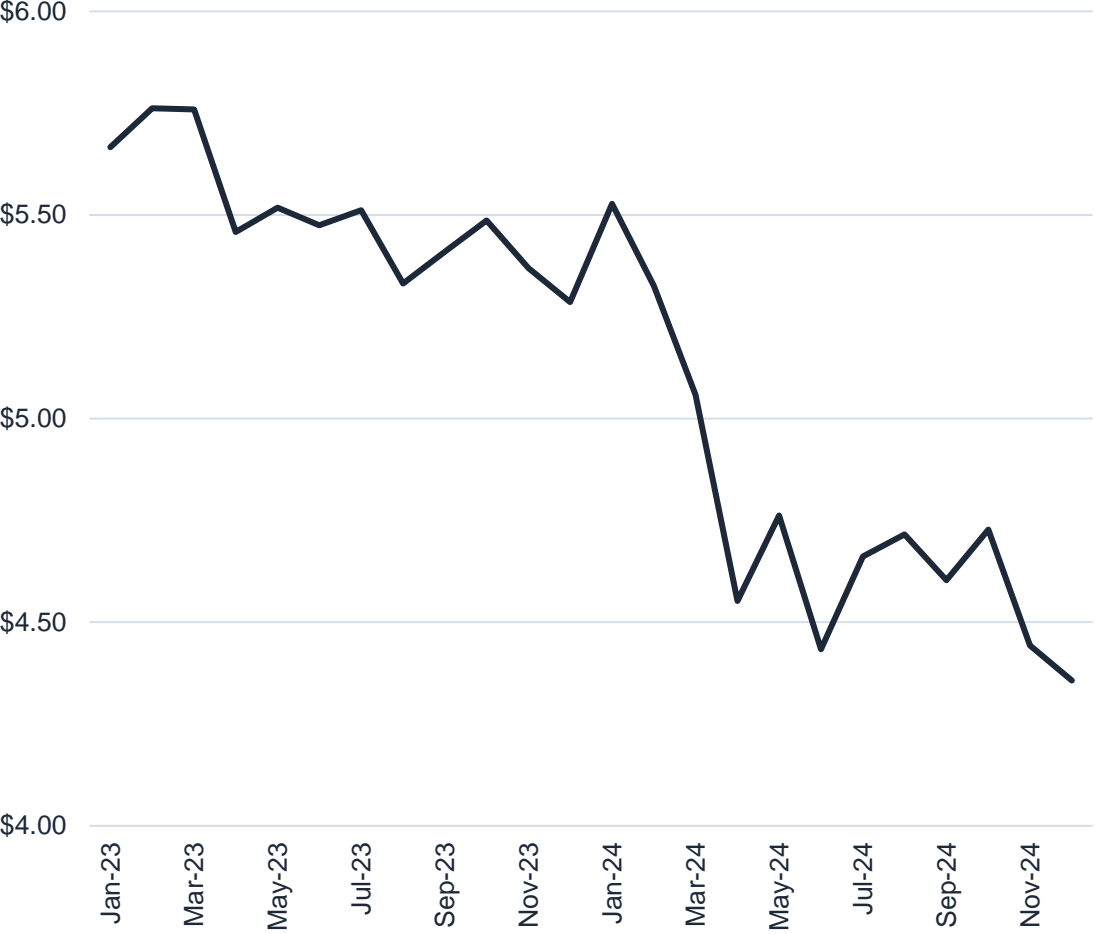
Source: General Administration of Customs of the People's Republic of China.  
1. Average monthly exports

# China graphite anode export prices have declined

Average Chinese spherical graphite export price (US\$/kg)<sup>1</sup>



Average Chinese AAM export prices (US\$/kg)<sup>1</sup>

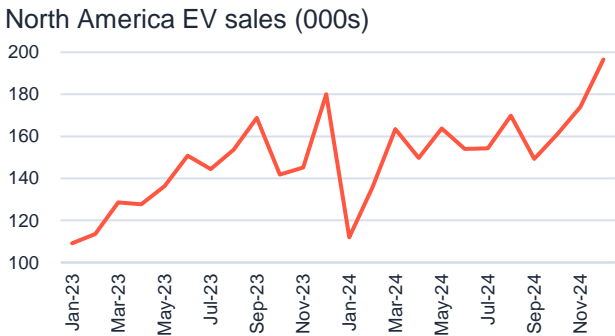


Source: General Administration of Customs of the People's Republic of China. Price shown on a FOB China port basis.




# Short-term headwinds for North American battery market


North America EV sales growth is volatile...




....Auto OEMs facing demand headwinds



**Suspended 2025 EV target of 1 million vehicles – new production target not announced, building to demand**

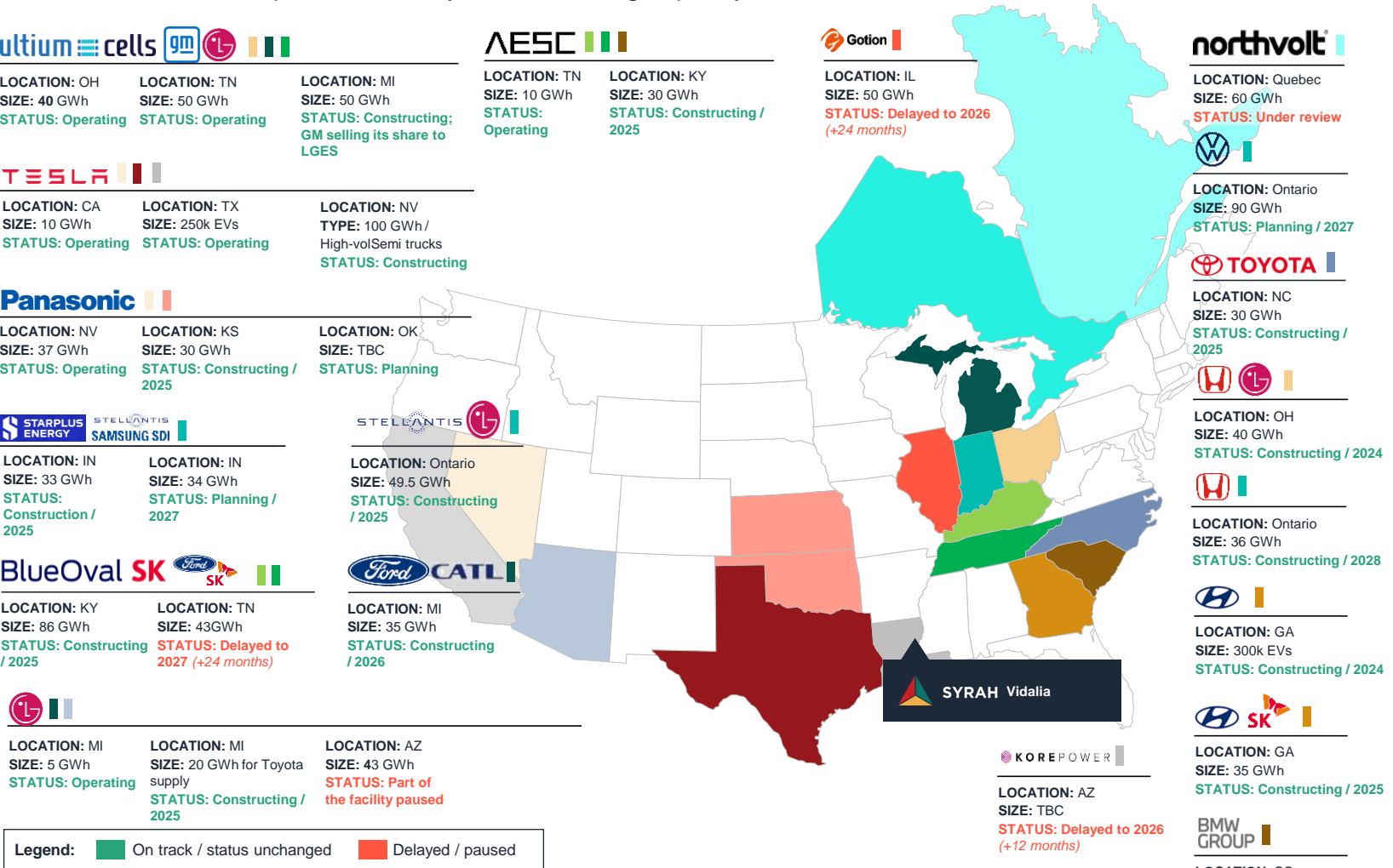


**Cancelled three-row SUV EV model; electric F-150 model delayed by 18 months (now expected in 2027)**



**Delayed US EV production from late 2025 to 2026**

Location and status of planned battery manufacturing capacity in North America



Source: Benchmark Mineral Intelligence Flake Graphite Forecast, Q4 2024, GlobalData company filings, media articles.

# Intersection of Government and market factors

Developments in any one of these factors could materially change near-term requirements for Syrah's products, as there are limited other ex-China suppliers that can meet near-term demand



**Permanent and discretionary Chinese Government licence controls on graphite product exports**

**Subsidised low-cost AAM being supplied to export markets**

**Unsustainable loss-making natural graphite, anode precursor and AAM production at current price levels and depletion of product inventories**

**Low grade synthetic AAM consumption domestically driving low spherical graphite processing utilisation and natural graphite fines demand**

**Prioritisation of graphite supply into Chinese battery manufacturing; environmental impacts**



**Non-FEOC graphite transition support and sourcing requirements for IRA Section 30D consumer credits**

**Trump Executive Orders supporting the domestic critical minerals industry, stockpiling of critical minerals and opposing the EV mandate**

**Section 301 and additional Trump tariffs, and Chinese trade policy retaliation risk**

**AD/CVD<sup>1</sup> duties on Chinese graphite AAM imports under investigation and may be imposed in 2025**
















**North American battery market highly reliant on Chinese graphite imports**

1. Refer ASX release 19 December 2024. Note AD/CVD is antidumping and countervailing duty

# A Republican Administration: What it means for non-FEOC graphite



Focus on developing domestic manufacturing, unfair competition from China and relaxation of EV adoption subsidies

			Possible policy changes and potential impacts on EV and battery supply chain	Impact on Syrah
Section 301 and Trump tariffs			New and increased (60%) tariffs on Chinese EVs, battery and critical mineral imports into the USA – higher anode material demand in the USA and higher-landed prices for Chinese anode materials	
			Increased Chinese investment in ex-China value-added processing to bypass US import tariffs	
Section 30D Credits (IRA)			Repeal Section 30D of the IRA <sup>1</sup> – slowed rate of EV adoption impacting US demand for critical minerals	
			Expand definition of FEOC and reverse 2-year transition period for non-FEOC graphite sourcing either if Section 30D remains or whilst repealing Section 30D	
Section 48C Credits (IRA)			Credits and budget allocation aimed at boosting manufacturing in the USA unlikely to be negatively affected	
Section 45X Credits (IRA)			Non-FEOC critical mineral sourcing requirement introduced for eligibility – does not impact Vidalia’s eligibility	

Note: <sup>1</sup> Repealing the IRA (or parts of it) requires Republican control of both the House and Senate but may be done under reconciliation. Changes to the implementation of the IRA (e.g. executive orders, guidance and definitions) do not require control of the House and Senate.



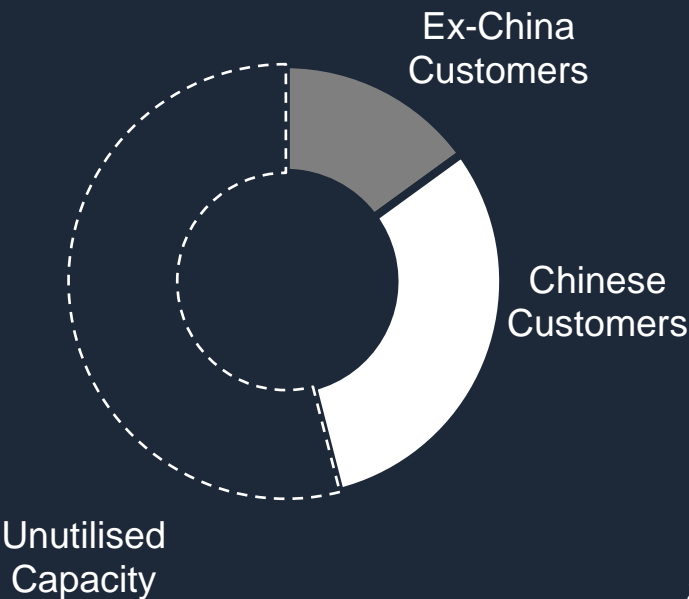
# Syrah Position



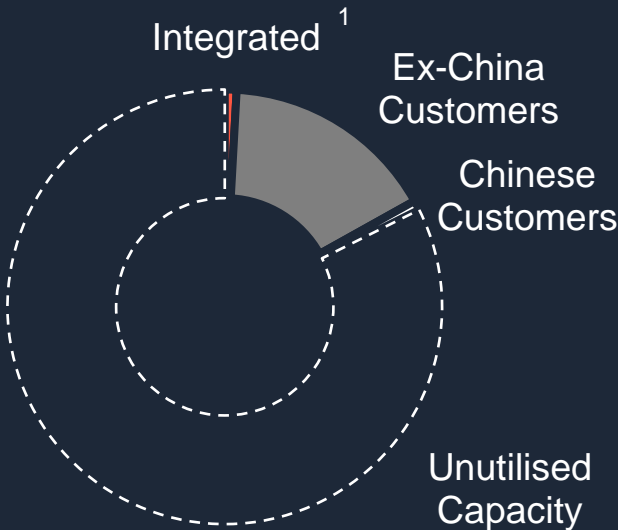
# Syrah fundamentally changing Balama sales composition

Driving toward higher and more stable utilisation of Balama’s production capacity

Balama sales composition (2022)



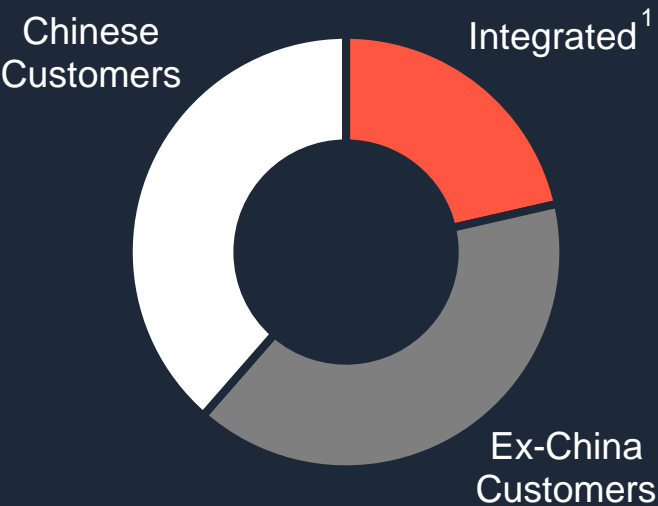
Balama sales composition (2024)



2024 sales impacts:

- Low fines sales volumes to China due to synthetic graphite AAM overcapacity and intense competition, higher synthetic graphite AAM use within China and suspended spherical graphite production
- Coarse flake availability constrained by inventory and production, which was limited by inadequate fines demand
- Protest actions impeded Balama operations

Target Balama sales composition (2027)



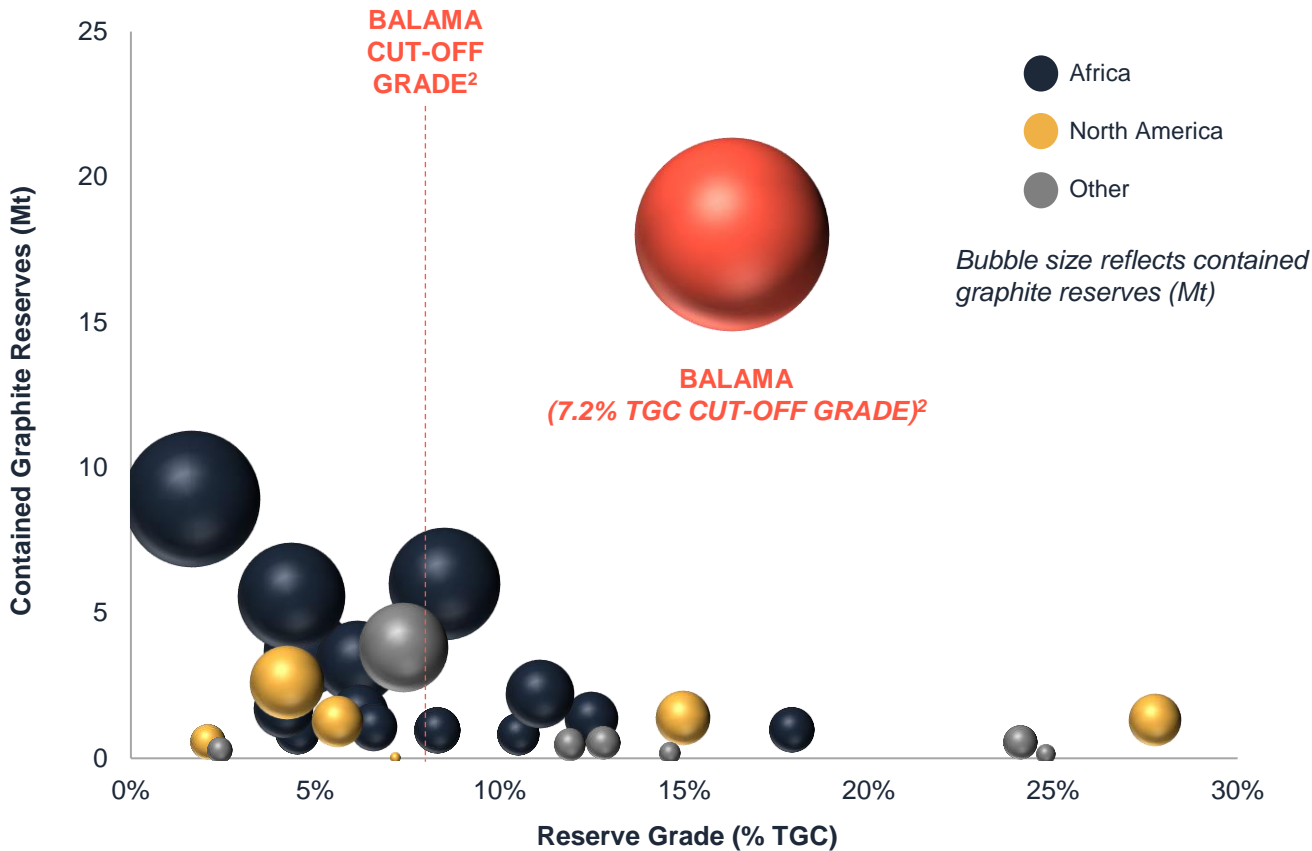
2027 target drivers:

- Engaged with nine ex-China AAM customers for Balama natural graphite supply
- Executed offtake agreements with Posco Future M, Westwater and Graphex
- US Government policy on non-FEOC graphite supply for IRA consumer tax credits

1. Integrated customer refers to Syrah’s Vidalia AAM facility.

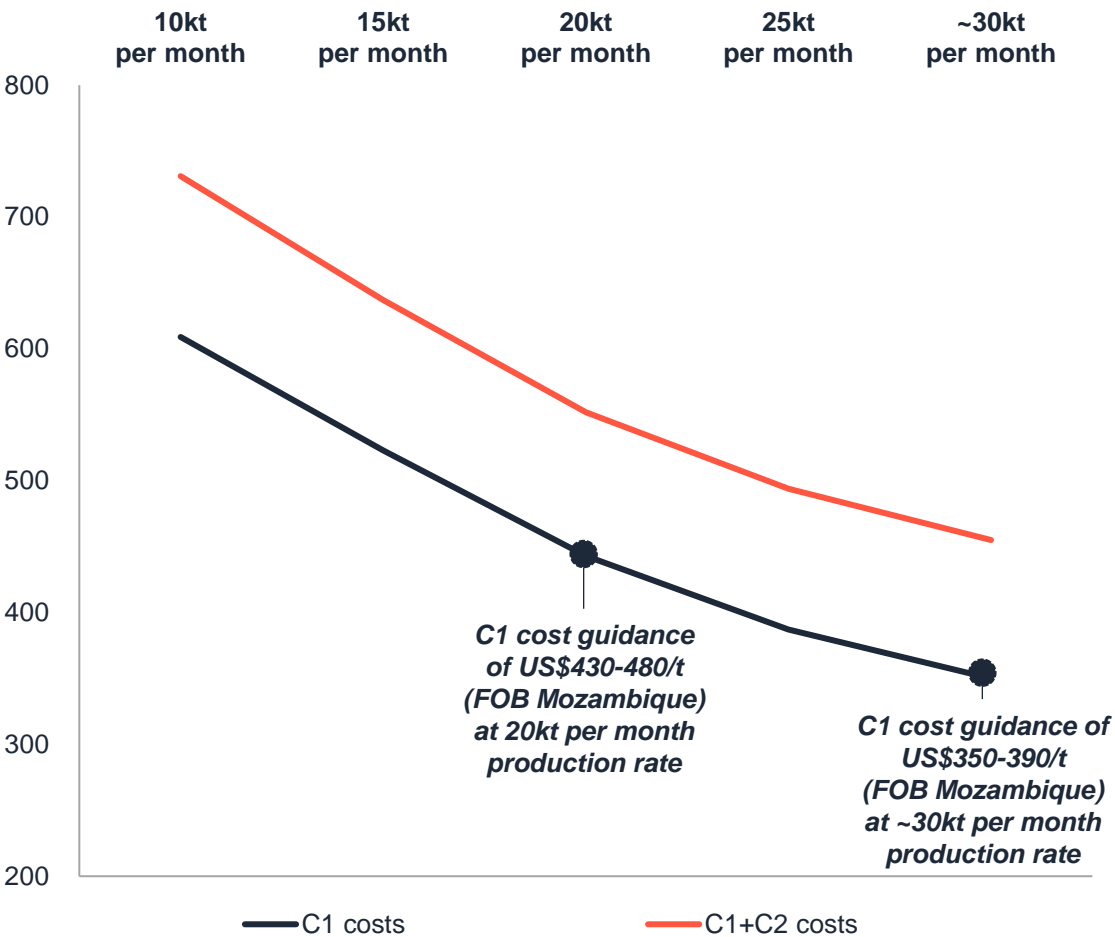
# Balama is the premier graphite resource and operation

Ex-China natural graphite reserves and reserve grade<sup>1</sup>



Limited pipeline of new ex-China supply underpinned by largely inferior resource characteristics compared with Balama

Balama operating costs (US\$/t FOB) at different production rates



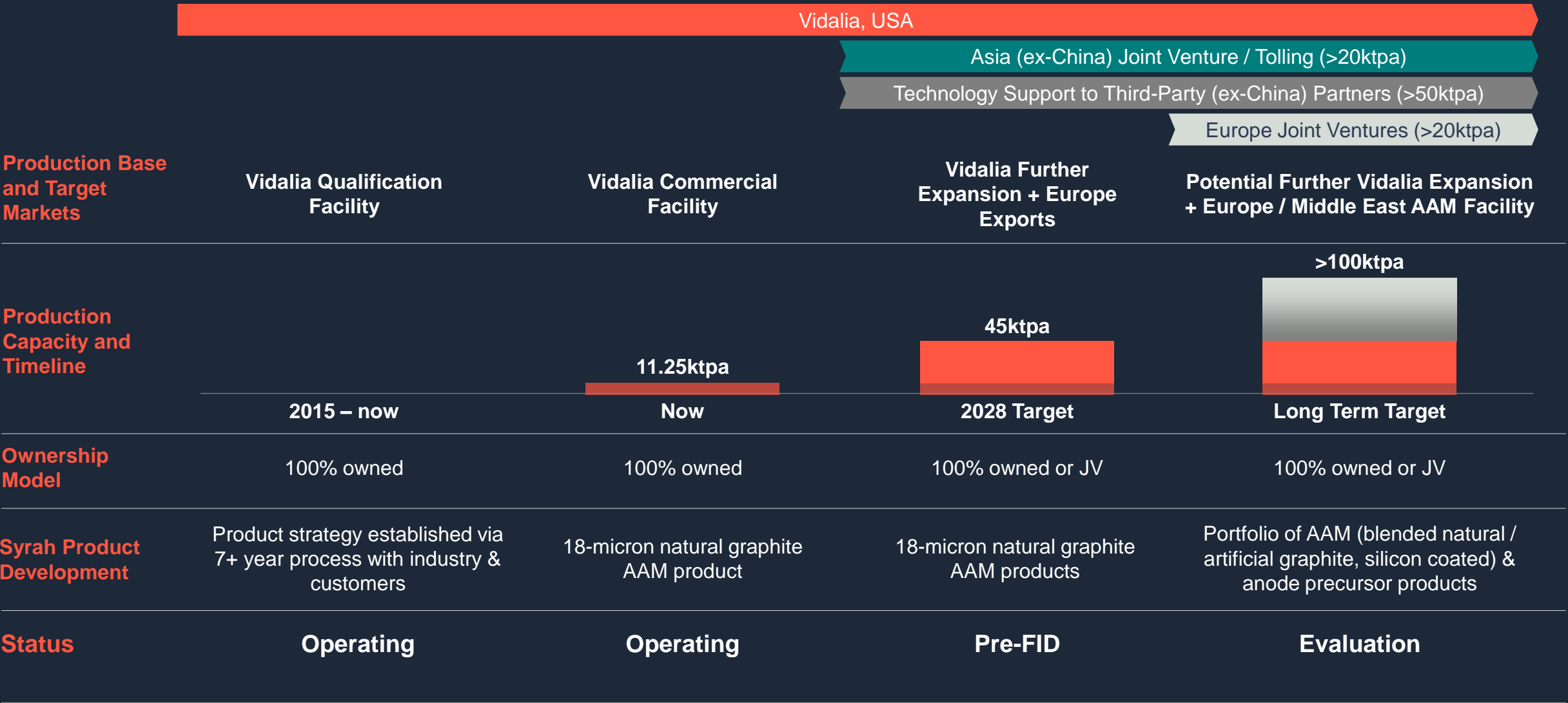
1. Sources: Company filings; Selected ASX / TSX-listed graphite projects with declared Reserves only and excludes Chinese producers. Based on long-term price forecasts for natural graphite products. Bubble size reflects contained graphite reserves; data current as at 30 September 2024.

2. As at 31 December 2023. The Ore Reserve is based on, and fairly represents, Syrah's ASX announcement dated 25 March 2024 (2023 Annual Report), which was prepared by competent person, Mr Jon Hudson. The Mineral Resource is based on, and fairly represents, Syrah's ASX announcement dated 25 March 2024 (2023 Annual Report), which was prepared by competent person, Mr Julian Aldridge.



# Vidalia is the cornerstone of Syrah’s downstream business

Downstream expansion is underpinned by Balama’s world-class resource



# Vidalia's attractive economics are built on cost and price experience

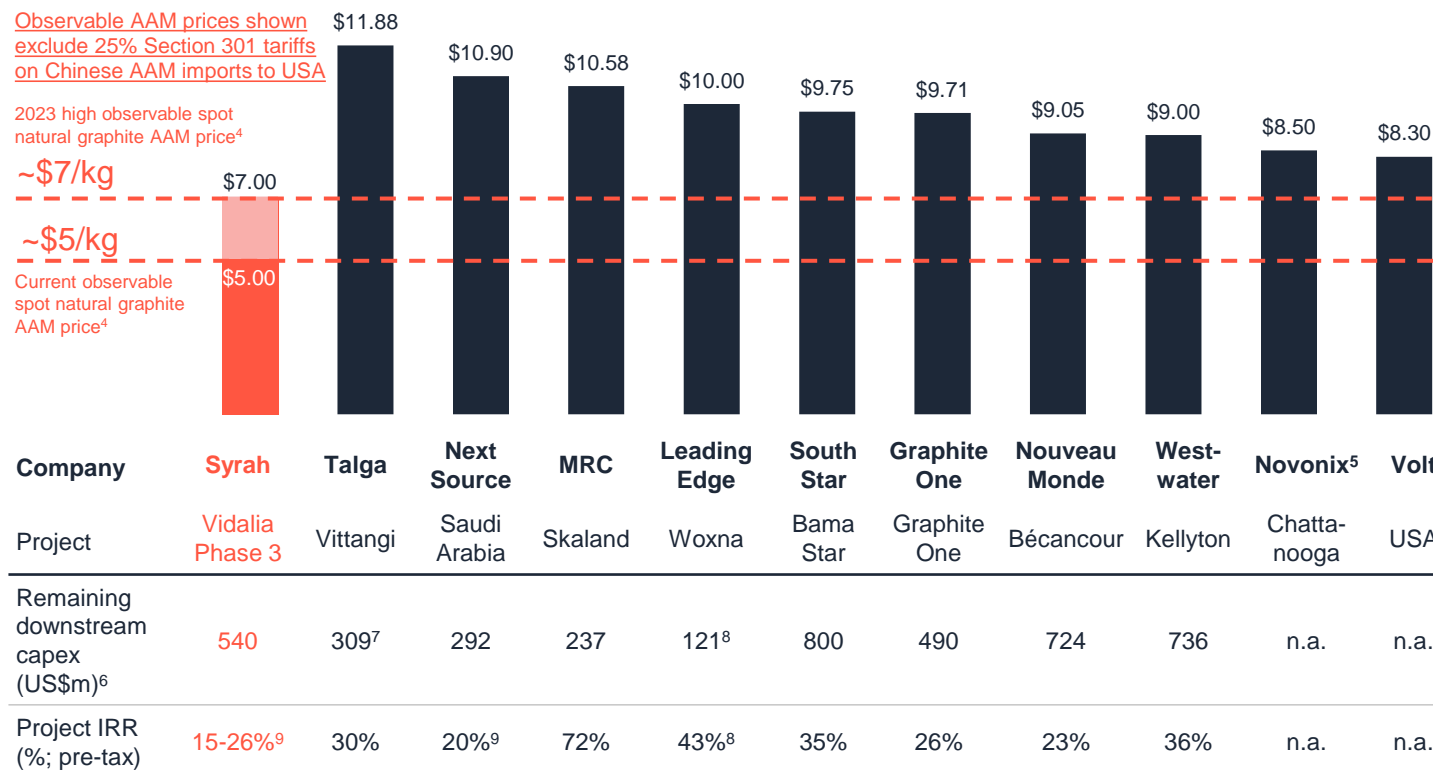
Potential for significant margin upside as new project inducement drives marginal pricing

## Economics of Vidalia facility (45ktpa AAM capacity)<sup>1</sup>

<b>AAM price</b> (2023 real)	<b>US\$5.00 – 7.00/kg</b>
<b>NPV<sup>2</sup></b> (post-tax)	US\$208 – 794m
<b>IRR<sup>2</sup></b> (post-tax, nominal)	15 – 26%
<b>Long-term EBITDA</b> (2023 real)	US\$103 – 192m per annum
<b>Long-term EBITDA margin</b>	44 – 60%

**Vidalia's economics will be significant at AAM prices required to induce new ex-China supply and with adoption of market-based pricing mechanisms in offtake**

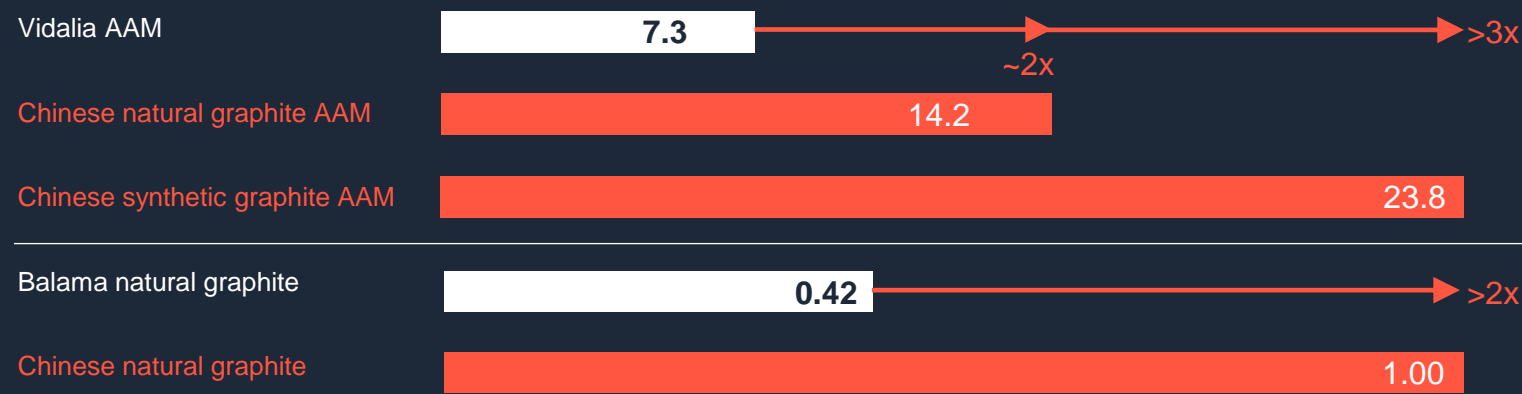
## Long-term natural graphite AAM price assumption (US\$/kg)<sup>3</sup>



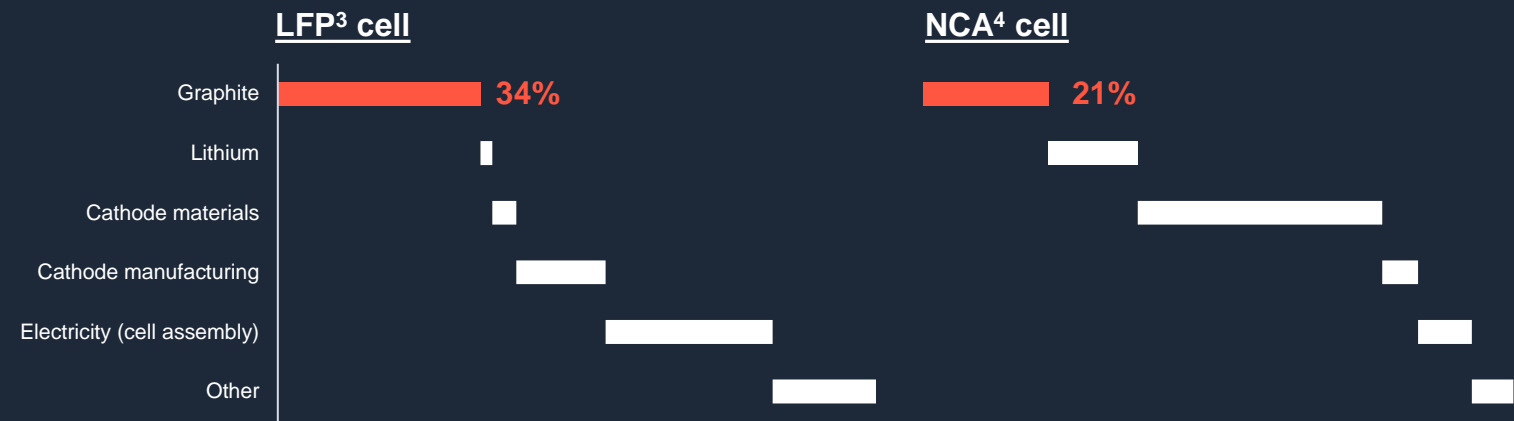
1. Refer ASX release 27 April 2023 for Syrah. Assumes cost of US\$425/t (FOB Nacala) for Balama natural graphite, reflecting an approximate all-in cost of production at Balama at full plant utilisation. Includes costs of transporting Balama natural graphite from Nacala to Vidalia and maintenance costs.
2. NPV adopts a 10% nominal discount rate. Project NPV and IRR is as at 1 April 2023 and incorporates 25 years of operations of the 45ktpa AAM Vidalia facility. Capital costs invested in the Vidalia Initial Expansion project and Vidalia Further Expansion project (including for the DFS) prior to 31 March 2023 are treated as sunk costs for the purposes of calculating NPV and IRR. NPV and IRR incorporates the Advanced Manufacturing Production Credit (Section 45X) under the IRA, for which Syrah expects Vidalia will be qualified for.
3. Source: Publicly available technical studies and feasibility reports. Projects do not necessarily propose to produce the same specification of AAM as Vidalia. However, all projects propose to produce a coated spherical graphite material.
4. Source: ICCSino. Prices are observable mid-point prices for "domestic/mid-range" natural graphite AAM, converted at a USD/CNY exchange rate and adjusted for China VAT (13%) and an assumed US\$100/t ocean freight rate between China and USA. Note these prices are not necessarily indicative of actual landed USA prices for AAM and exclude a 25% Section 301 tariff and potential AD/CVD duties on Chinese AAM imports to USA.
5. Novonix is a synthetic AAM project that has been included for comparison.
6. Remaining capital costs for downstream anode processing facility only.
7. Includes contingency and excludes infrastructure capital costs.
8. Includes mine and upstream natural graphite processing.
9. Post-tax IRR.

# Syrah's ESG position provides lower emissions & traceability

Global warming potential of graphite products (kg CO<sub>2</sub> eqv./kg product)<sup>1</sup>



Global warming potential of cells<sup>2</sup>



ESG element	Syrah (as proxy for ex-China suppliers)	Major Chinese suppliers
Responsible Mining Assurance	IRMA <sup>5</sup> 50 level of achievement	No published commitments
Tailings Storage Assurance	ICMM GISTM <sup>6</sup> alignment underway	No published commitments
Audited Life Cycle Assessment ("LCA")	LCA completed with Minviro and independently reviewed	No published company assessments
Human Rights and Modern Slavery analysis	Published Modern Slavery Statement and action plan	No published commitments
External reporting	Quarterly reporting of key sustainability metrics on website	No widely available reporting

1. Source: Minviro Ltd's life cycle assessment on Syrah. Notes: Global Warming Potential ("GWP") is defined as the cumulative radiative forcing, both direct and indirect effects, over a specified time horizon resulting from the emission of a unit mass of gas related to some reference gas [CO<sub>2</sub>: (IPCC 1996)]. GWPs shown are a forecast life of operation average for Vidalia based on detailed engineering and include scope 1, scope 2 and scope 3 greenhouse gas emissions. Syrah's LCA meets the requirements of ISO14040/14044 standards and has been critically reviewed by a third-party. 2. Source: Tesla 2022 Impact Report. 3. Lithium Ferrophosphate. 4. Nickel-Cobalt-Aluminium. 5. Initiative for Responsible Mining Assurance. 6. International Council on Mining and Metals, Globally Industry Standard on Tailings Management.

# Syrah's targets embedding unique advantages

## Recent milestones

- Dec-21** – Binding offtake agreement with Tesla for Vidalia AAM supply
- Jul-22** – US\$102m binding loan from US DOE for the initial expansion of Vidalia
- Dec-22** – Tesla exercised its option to offtake an additional 17ktpa natural graphite AAM from the Vidalia 45ktpa expansion
- Apr-23** – Vidalia DFS confirmed that expansion to 45ktpa AAM production capacity is technically viable, financially robust and expected to generate significant value for Syrah
- Aug-23** – Natural graphite binding offtake agreements with Graphex Technologies and Westwater Resources for Balama natural graphite to be supplied to proposed US-based AAM processing facilities
- Feb-24** – Fully integrated AAM production commenced from 11.25ktpa AAM Vidalia facility
- Mar-24** – Binding long-term offtake with Posco Future M for Balama natural graphite
- Apr-24** – 10kt breakbulk sale to PT Indonesia New Energy Materials in Indonesia
- Oct-24** – US\$150m binding loan from US DFC loan for Balama
- Dec-24** – IRMA 50 level of achievement for Balama
- Jan-25** – US\$165m IRA Section 48C tax credit award for the Vidalia Further Expansion project

## Key targets

- **Positive resolution of Balama protest actions and resumption of production**
- **Commercial and offtake sales from 11.25ktpa AAM facility at Vidalia**
- **Offtake agreements for the Vidalia Further Expansion project**
- **US DOE conditional loan commitment for the Vidalia Further Expansion project**
- **FID on the Vidalia Further Expansion project**
- **Commercial arrangements to accelerate Syrah's exposure to ex-China downstream market**
- **Balama natural graphite offtake with ex-China AAM customers**



# Our Valuation Proposition

Syrah is leading ex-China natural graphite and anode material production capacity and sales growth



## Vertical Integration

- Natural graphite from Balama for AAM producers
- AAM from Vidalia for battery makers and auto OEMs



## Operating and Development

- Largest integrated natural graphite operation globally
- First vertically integrated natural graphite AAM supplier outside of China



## Cost Position

- Cost competitive AAM supply from Vidalia
- Sustainable and low-cost curve position at Balama with project development capital already fully invested



## ESG Position

- Leading ESG standards and sustainability frameworks
- Low greenhouse gas emissions footprint
- Single chain of custody offers full auditability and transparency



## Expansion Potential

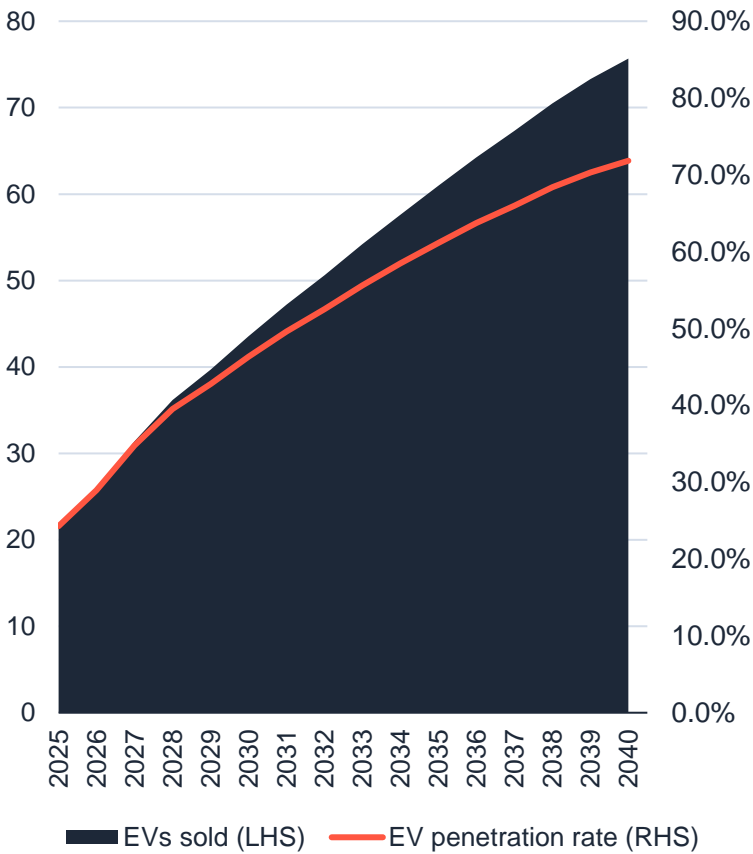
- Significant downstream expansion potential at Vidalia and ex-China markets
- Upstream brownfield expansion potential at Balama

# Appendix

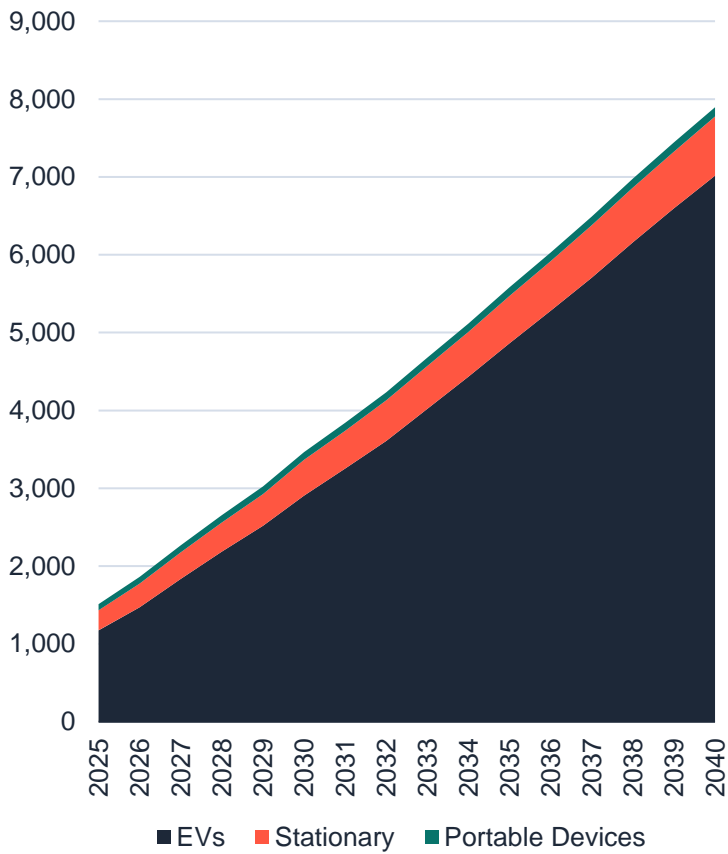


# Battery and natural graphite fines (-100mesh) demand is in the early stages of growth – driven by EV adoption

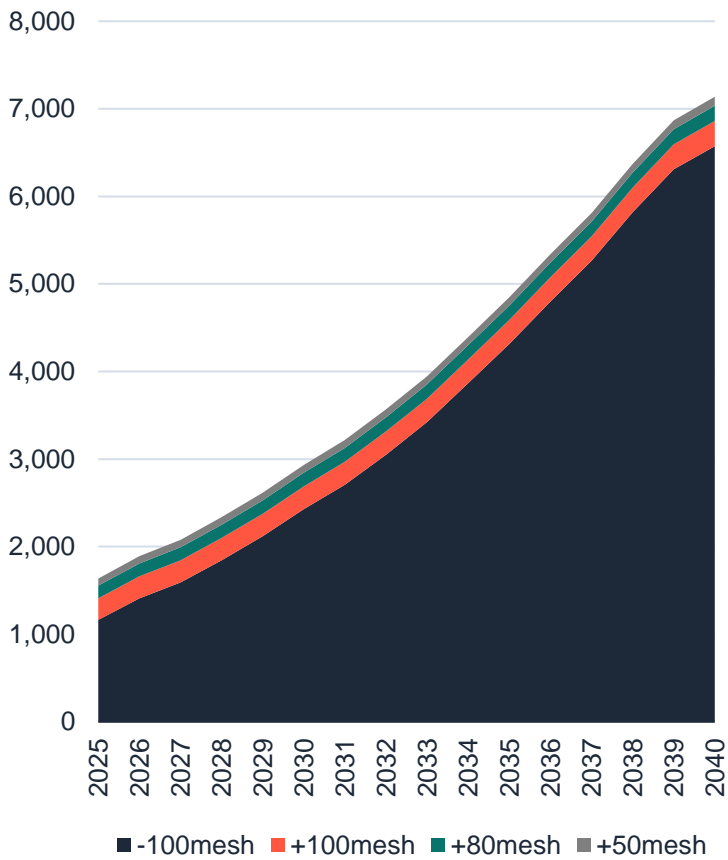
Global EV Sales (Millions)



Lithium-ion Battery Capacity (GWh)



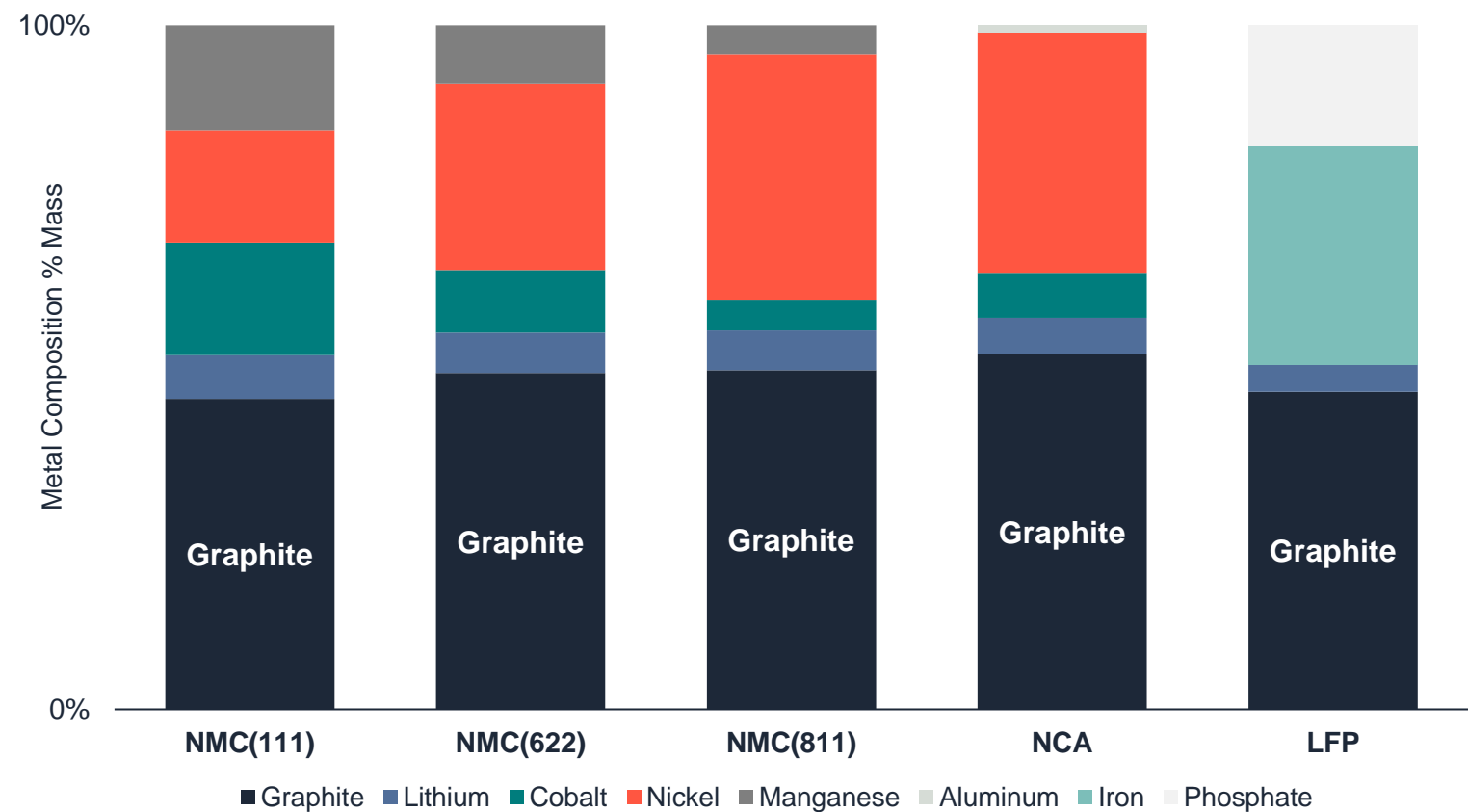
Natural Graphite Demand (kt)



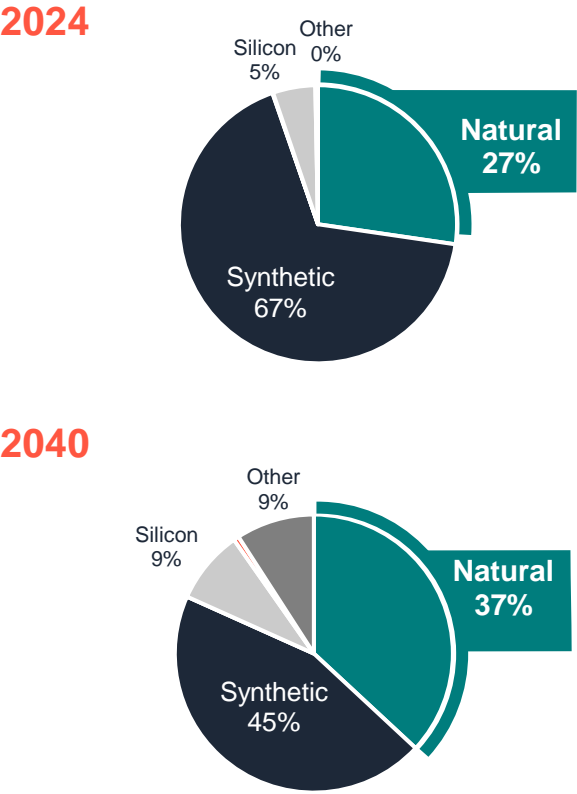
Source: Benchmark Mineral Intelligence Flake Graphite Forecast, Q4 2024

# Graphite is a high intensity material in EV batteries, with costs / emissions expected to drive shift towards natural graphite

Battery Mineral Composition of Batteries<sup>1</sup>



Natural Graphite Demand for Batteries<sup>2</sup>



1. Source: Syrah Resources analysis, data from Gaines, L., Richa, K., & Spangenberg, J. (2018) Key issues for Li-ion battery recycling (excludes oxygen). Notes: NMC: Lithium nickel manganese cobalt oxide battery; NCA: Lithium nickel cobalt aluminium oxide battery; LFP: Lithium iron phosphate battery.  
2. Source: Benchmark Mineral Intelligence Flake Graphite Forecast, Q4 2024.



# Syrah's global business to supply growing battery anode demand

