



US Carbon

From carbon to critical.
Critical carbon materials for
the next industrial boom.

US Carbon | \$5M Seed Round | September 2026

THE THESIS

Graphite powers the grid and the arsenal. America needs a new way to make it.

We turn American coal into critical carbon materials in hours, not weeks.
Graphite first, targeting one-quarter of conventional cost. Advanced carbon products next.

1,000×

**Coal-to-graphite value
uplift**

Company estimate

1,000 t/yr

**Currently permitted
capacity**

100 MT/year initial pilot

\$5M

Seed round

Commercialize the platform

The next industrial boom runs on carbon materials

Anodes. Electrodes. Thermal protection. Growing demand across electrification, AI and aerospace.

Data-centre batteries

20–25 GW of on-site battery storage expected by 2030.

ANODES · STORAGE

Grid storage

~0.9 kt graphite per GWh of cells: ~270 kt for 300 GWh.

ANODES · STORAGE

Electric vehicles

50–100 kg of graphite in an EV battery.

ANODES · EVs

Compute and thermal

Crucibles, susceptors and heat spreaders for chips and servers.

AI · THERMAL

Small modular reactors

Per pebble-bed reactor: ~300 t at start-up; 60–100 t/year to operate.

NUCLEAR GRAPHITE

Missiles & hypersonics

Carbon-carbon and graphite for nose tips, nozzles and thermal protection.

AEROSPACE · THERMAL

Drones and munitions

Graphite anodes for drone batteries; specialty carbon for defense systems.

ANODES · DEFENSE

Steel

Graphite electrodes enable electric-arc steelmaking.

ELECTRODES · STEEL

2.3 Mt/yr

graphite demand, metallurgy

4.2 Mt/yr

graphite demand, EVs & batteries

10×

more graphite than lithium in a battery

The next generation of industry needs a new generation of carbon manufacturing.

Supply concentration puts critical industries at risk

U.S. buyers depend on overseas supply and processing. Export controls add uncertainty to already concentrated markets.

SHARE OF THE SUPPLY CHAIN

U.S. share of graphite mining



U.S. share of graphitization capacity



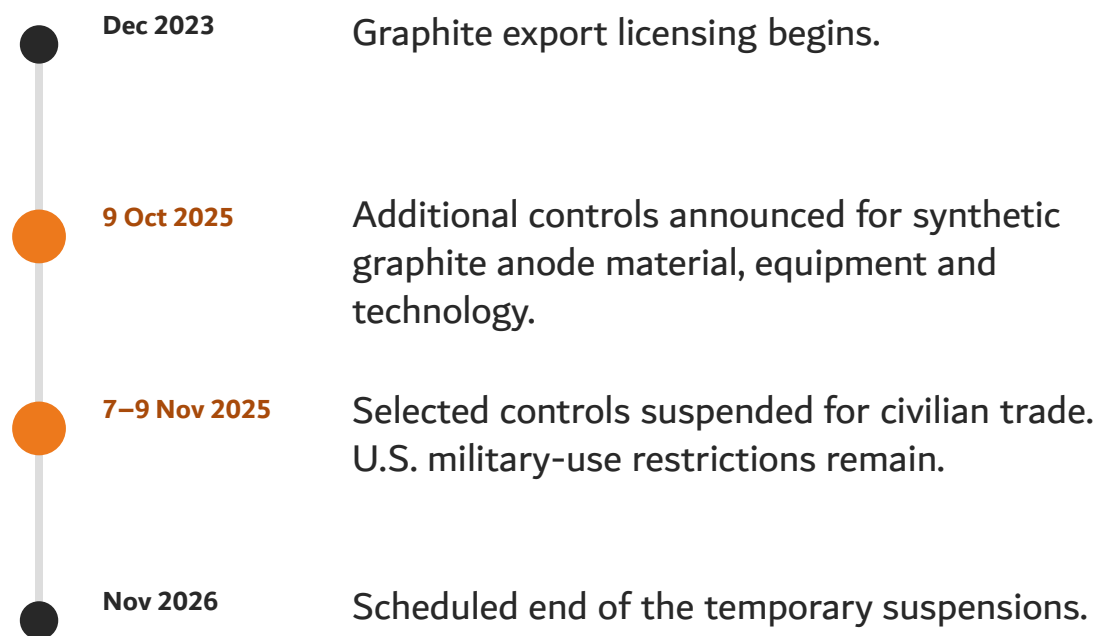
China's share of graphitization capacity



WHAT IT'S IN

Anodes for batteries. Graphite for reactor cores. Carbon-carbon for missile nose tips, rocket nozzles and hypersonic protection.

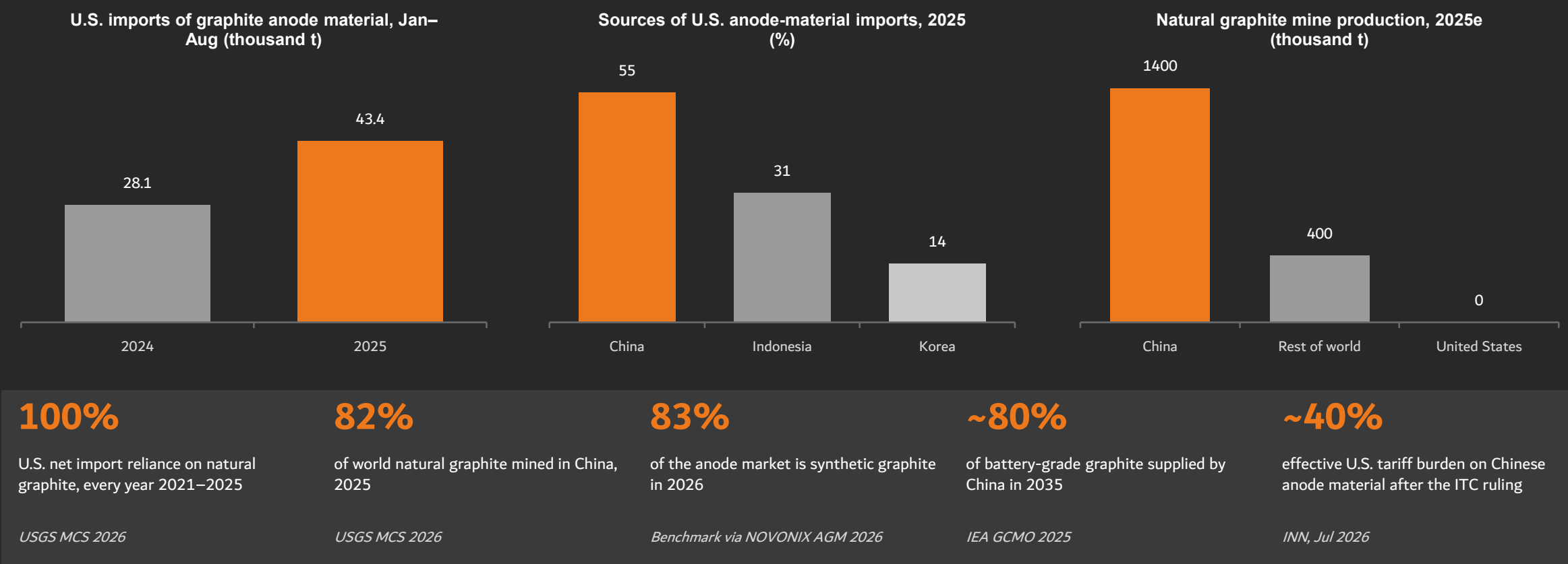
CHINA'S EXPORT-CONTROL TIMELINE



Feedstock: mined graphite loses up to 70% of its material in purification that happens in China. Process: Acheson synthesis runs on imported needle coke for 1–3 weeks at ~3,000 °C.

What Washington has already done for us — and the clock

Mar 2026: the ITC dismissed the 93.5% preliminary antidumping duty — the tariff burden on Chinese anode material settles ~40%, and buyers want a domestic option · China’s export controls on value-added graphite · 45X production credit (blend-in path for battery makers) · DPA Title III proposals under review · DIBC (\$14–47M) and DOE critical-minerals demonstration (\$20M) awards in the 2026 funding model. **China’s export-control suspension for U.S. buyers expires November 2026; the ban on military end use never lifted.**

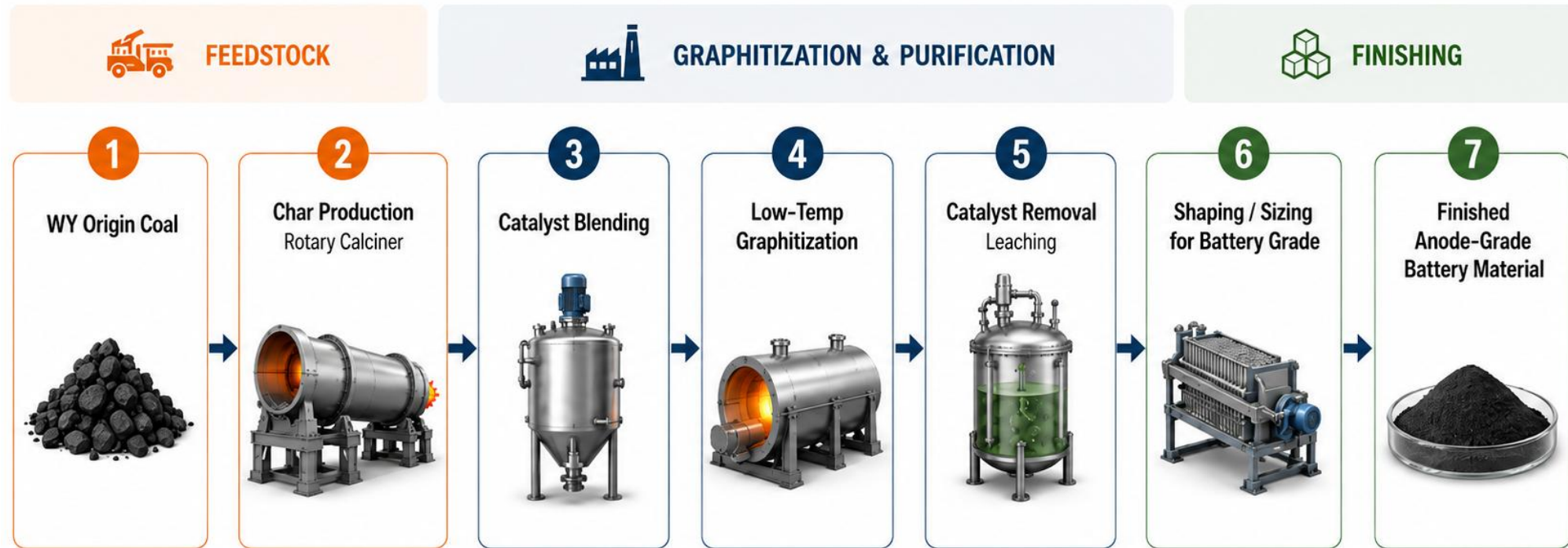


Market: the U.S. graphite market was \$2.07B in 2025 and reaches \$3.40B by 2033 at 6.6% CAGR, synthetic 69% of it (Grand View Research); BCC sizes North America at \$2.75B in 2027 within a \$25.0B global market. U.S. data centres account for nearly half of U.S. electricity demand growth to 2030 (IEA). **None of our economics depend on 45X or the tariff.**

Sources: USGS MCS 2026; IEA GCMO 2025/26 and Energy & AI (2026); Benchmark via NOVONIX 6-K (Apr 2026); INN (Jul 2026); Fastmarkets; Grand View Research (2025/26); BCC AVM140B (2022); WEA proposal funding model.

A fundamentally better way to make critical carbon

Patented, DOE-supported catalytic reforming of abundant American coal. Target: 75% lower energy cost.



Abundant domestic feedstock

\$14/tonne coal. Potential 20-year purchasing agreements. Supply near the Wyoming site.

Recovery drives economics

>95% catalyst and processing-acid recovery reported. Make-up reagents and utilities remain required.

A modular materials platform

Conventional unit operations, with finishing tailored to customer specifications.

Promising graphite performance. Pilot validation next.

Tested on NTEC Antelope Mine coal

>95%

Degree of graphitization

<0.1 wt%

Ash after HCl leach and filtration

<5 m²/g

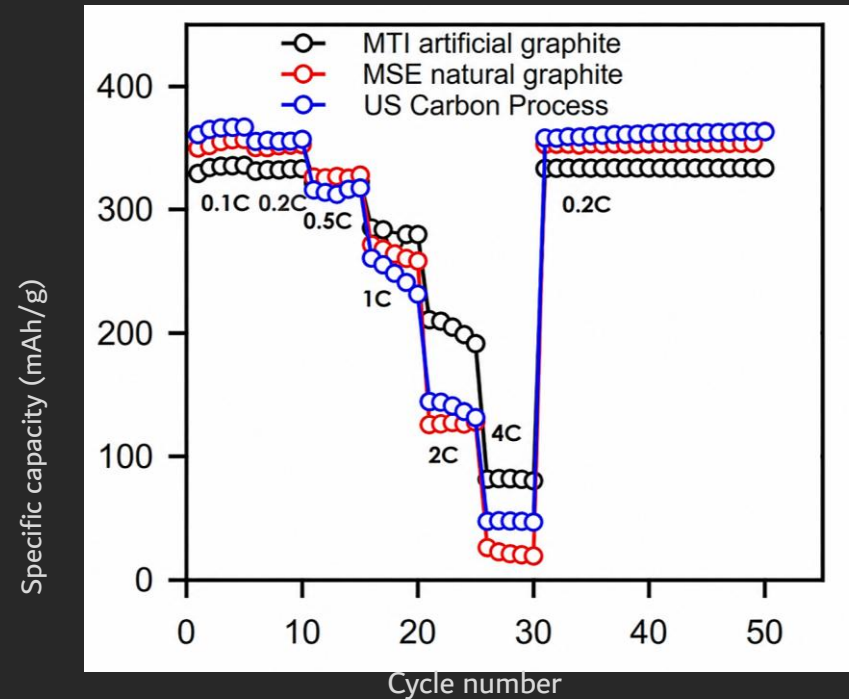
Surface area for anode development

>80%

Carbon yield; catalyst recovered for reuse

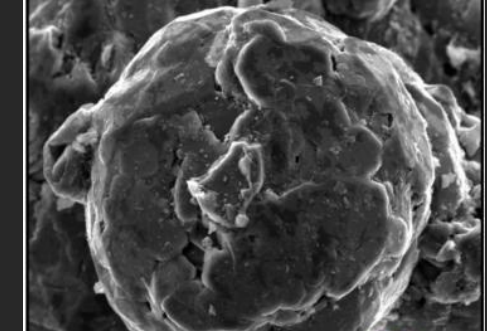
7+ years and \$10M of DOE research at NETL.
XRD characterization at UC San Diego; battery cycling at NETL.
Chemical feedstocks: <\$260/t of finished graphite.

Battery cycling performance

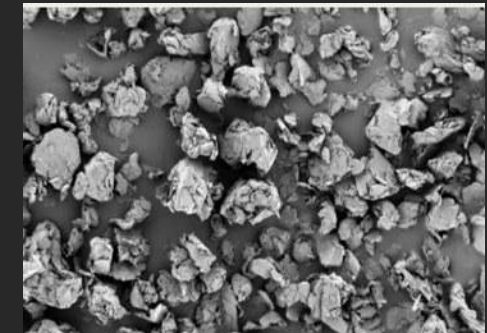


Scale-up path: conventional furnaces, established unit operations and catalyst recovery. One-tonne runs test repeatability and operating economics.

The pilot converts technical evidence into a repeatable commercial product.



Coal-derived graphite



Hitachi E3 graphite

FIRST PRODUCT · CUSTOMERS

Graphite first. Customer qualification drives the launch.

Defense and aerospace anodes first. Nuclear-grade graphite is the second launch application; LOI signed.

\$20,000 Per tonne launch pricing	100 MT Annual pilot capacity	9 months Target qualification under an agreed protocol	\$2M Annual revenue at full pilot sales
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PRIORITY COMMERCIAL ACCOUNTS

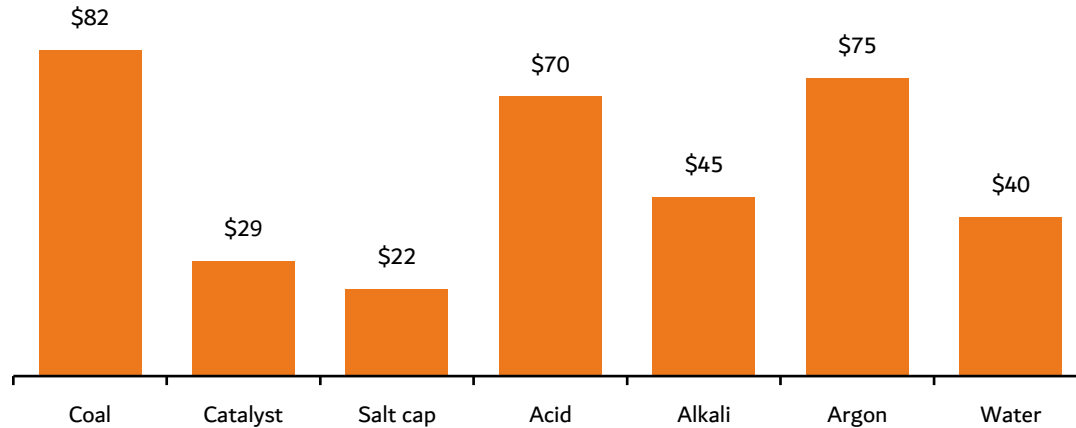
American Lithium Energy DEFENSE / BATTERY Sample production ongoing Battery material evaluation and qualification Next objective Sample acceptance and a qualification lot	GrafTech FINISHING / PARTNERSHIP Early partnership discussions Technical evaluation, finishing and commercial collaboration Next objective Agree the evaluation scope	Forge Nano BATTERY CDA signed Anode development, coating and downstream qualification Next objective Deliver samples for evaluation
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Why buyers switch: domestic supply, traceability and direct material development.
 Commercial goal: convert technical engagement into qualified product and initial orders.

45X can support eligible domestic manufacturing; buying U.S. graphite does not itself earn a credit.

Our low-cost graphite beats China and is built in Wyoming

Raw materials cost, US Carbon process (\$/tonne product, 2026 TEA)



Target: 75% lower production cost for comparable finished graphite at commercial scale. Modelled cost \$1,256/t at 1 kt (2026 TEA) vs ~\$8,500–9,400/t conventional synthetic — ~85% lower, so the target is conservative. Raw materials \$363/t; calcined petcoke alone is ~\$468/t. **The margin holds at zero tariff and zero premium.** Launch in high-value applications at \$20,000/MT; expand as production economics improve. Detailed TEA in the appendix.

HOME FIELD ADVANTAGE — BUILT IN WYOMING

100 MT/yr

initial capacity — seed round only

2,000 MT/yr

facility capacity — seed + targeted state match

Permitted now — cuts the 2+ year greenfield wait · ~25–30% of pilot equipment already on site · utilities and facilities sized to scale past 1 kt · coal delivered by truck or rail from within 20 miles · permits amended as capacity grows

COMMERCIAL SCENARIO

100 MT sold at \$20,000/MT → \$2.0M annual revenue

1,000 MT sold at an illustrative \$12,000/MT → \$12.0M annual revenue

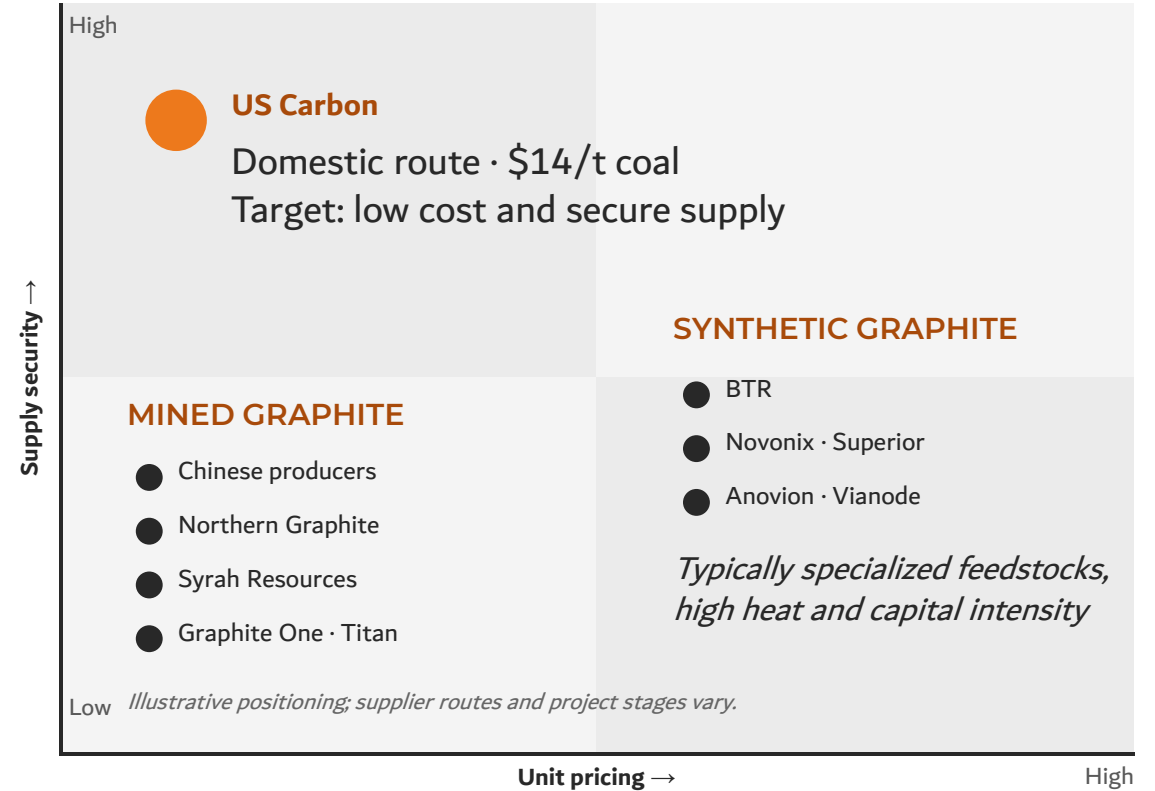
\$50M reflects the partner ecosystem and coal-processing infrastructure co-located on the campus — the scale of what surrounds the pilot, not pilot CAPEX. Our co-founder Jim Ford built the base for pilot development near abundant domestic coal supply.

Competition

Win on manufacturing economics and domestic supply

A lower-cost production route.
U.S. manufacturing and traceability.
Materials developed with customers.

Buyer priorities: performance, delivered cost, consistency and security of supply



The moat strengthens with operating experience and customer qualification.

Mined graphite

Remote deposits and permitting. Extensive purification. Potential processing losses of up to 70%.

Legacy synthetic graphite

The 110-year-old Acheson route: high energy use, long cycles and specialized carbon feedstocks.

A 24-month Seed program built around qualification

The 100 MT pilot supplies qualification lots, early sales and measured production economics.

COMMISSION



Install and commission the 100 MT/year pilot

VALIDATE



Demonstrate repeatable, customer-required material

QUALIFY



Target a nine-month customer qualification

CONTRACT



Secure initial purchasing commitments

EXPAND



Engineer the 2,000 MT/year expansion

Nine months is the qualification target under an agreed customer protocol; it is not a guaranteed date from the financing close.

Scale-up

Heat transfer, solids handling and recovery at pilot scale.

Conventional equipment, modular operations and NETL collaboration.

GATE: REPEATABLE PRODUCT

Qualification

Qualification can take 12–18 months; 3–5 years at majors.

Defense and aerospace first, with an agreed nine-month target and early sampling.

GATE: CUSTOMER ACCEPTANCE

Price

Chinese material: ~\$4–5k/t ex-works; ~\$7–10k/t landed.

Validate the \$1,256/t modeled COGS and \$20,000/t launch price.

GATE: MEASURED ECONOMICS

Policy & funding

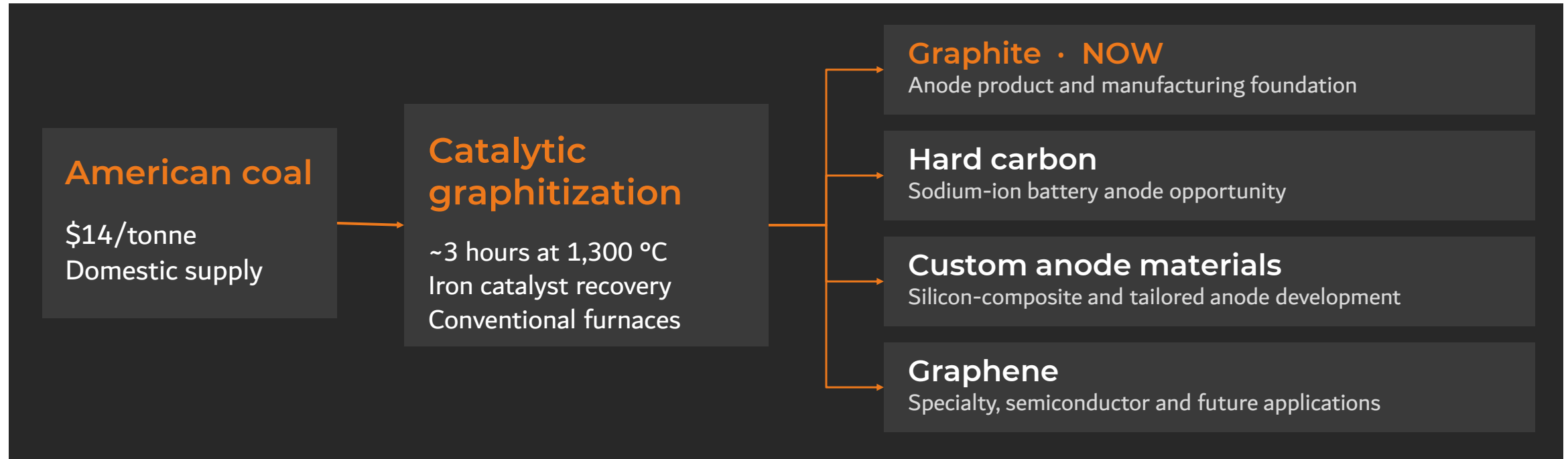
45X, tariff changes and the targeted \$5M state match.

Base operating case excludes incentives. Expansion follows committed funding.

GATE: FUNDED EXPANSION

Graphite is the beginning of the carbon materials platform

One domestic carbon foundation. Multiple product pathways, each with its own qualification.



LONG-TERM GRAPHITE SCENARIO

500 kt/year

~20% of global demand in the scenario

~\$5B/year

At \$10,000/t; requires substantial future capital

Graphite first

Additional products require independent validation



Kyle Adkins
CCO / CFO

Industrial and energy investor/operator.

16+ years in private equity, real assets and banking. Hundreds of millions in funding, offtakes and project development.

MIT engineer.



Jeffrey Ehrhardt, PhD
CEO

Chemical engineer and process inventor.

Scaled polymerizations to 80,000 L at PPG. Launched bio-based indigo in <18 months at Shreenika.

\$50M+ in deals since 2020.



Jim Ford
COO

Wyoming manufacturing leader.

Built and permitted the pilot site. Scaled Atlas activated charcoal from bench process to kiloton launch.

30+ years in the coal sector; Campbell County Commissioner.

WE KNOW HOW TO SCALE & SELL

TURN ABUNDANT AMERICAN CARBON INTO MATERIALS FOR THE NEXT INDUSTRIAL BOOM.

A critical carbon materials platform.
Graphite first. From carbon to critical.

\$5M SEED ROUND

BUILD THE SUPPLY CHAIN WITH US.

Jeffrey Ehrhardt
jeff.ehrhardt@us-carbon.com
+1 919-593-7723 | us-carbon.com

THE ASK

\$5M Seed • \$250K invested by founders

BUILD

100 MT/year pilot, technical team and customer qualification. Targeted \$5M state match supports expansion to 2,000 MT/year.

PROVE — 24-MONTH PROGRAM

Repeatable material. A targeted nine-month qualification. Initial purchasing commitments and measured economics.

Beyond capital: customer introductions and funding support.

